

VOL. VI, PP. 285-291, I-LXXXIII, PL. 15

OCTOBER 31, 1895

THE
NATIONAL GEOGRAPHIC
MAGAZINE



WASHINGTON
PUBLISHED BY THE NATIONAL GEOGRAPHIC SOCIETY
REPRINT

Price 25 cents

THE
NATIONAL
GEOGRAPHIC MAGAZINE

VOLUME VI
JANUARY, 1894, TO MAY, 1895

W J MCGEE, *Chairman*

C. HART MERRIAM

Publication Committee



WASHINGTON
PUBLISHED BY THE NATIONAL GEOGRAPHIC SOCIETY
1895

OFFICERS OF THE NATIONAL GEOGRAPHIC SOCIETY

1894 AND TO MAY 31, 1895

GARDINER G. HUBBARD, *President*

T. C. MENDENHALL*	}	<i>Vice-Presidents</i>
GEORGE W. MELVILLE		
A. W. GREELY		
C. HART MERRIAM		
W. B. POWELL		
HENRY GANNETT		

CHARLES J. BELL, *Treasurer*

CYRUS C. BABB,† *Recording Secretary*

ELIZA R. SCIDMORE, *Corresponding Secretary*

MARCUS BAKER	}	<i>Managers</i>
H. F. BLOUNT		
G. K. GILBERT		
EVERETT HAYDEN		
JOHN HYDE		
W J McGEE		
F. H. NEWELL		
EDWIN WILLITS		

* Resigned December 14, 1894; vacancy filled by the election January 31, 1895, of Charles W. Dabney, Jr.

† Resigned January 31, 1895; vacancy filled by the election of Everett Hayden.

PRINTERS
JUDD & DETWEILER
WASHINGTON

CONTENTS

	Page
Geographic Progress of Civilization: Annual Address by the President, GARDINER G. HUBBARD.....	1
Shawangunk Mountain; by N. H. DARTON.....	23
Weather Making, Ancient and Modern; by MARK W. HARRINGTON.....	35
Geomorphology of the Southern Appalachians; by CHARLES WIL- LARD HAYES and MARIUS R. CAMPBELL.....	63
The Battle of the Forest; by B. E. FERNOW.....	127
Surveys and Maps of the District of Columbia; by MARCUS BAKER..	149
The First Landfall of Columbus; by JACQUES W. REDWAY.....	179
Japan; by D. W. STEVENS.....	193
Geography of the Air: Annual Address by Vice-President A. W. GREELY.....	200
Sir Francis Drake's Anchorage; by EDWARD L. BERTHOUD.....	208
Note on the Height of Mount Saint Elias; by ISRAEL C. RUSSELL..	215
Notes by C. C. BABB: The Antarctic Continent.....	217
Magnetic Observations in Iceland, Jan Mayen, and Spitzbergen in 1892.....	223
A New Light on the Discovery of America..	224
Monographs of the National Geographic So- ciety.....	225
Laws of Temperature Control of the Geographic Distribution of Ter- restrial Animals and Plants: Annual Address by Vice-President C. HART MERRIAM.....	229
Oregon: its History, Geography, and Resources; by JOHN H. MITCHELL.....	239
Index to Volume VI.....	
Title-page and Imprimatur.....	i
Contents.....	iii
Illustrations.....	iv
Publications of the National Geographic Society.....	vi
Proceedings of the National Geographic Society.....	xiii
Seventh Annual Report of the Recording Secretary.....	xxi
Seventh Annual Report of the Treasurer.....	xxvi
Report of the Auditing Committee.....	xxviii
By-laws of the Society.....	xxix
Officers of the Society.....	xxxii
Honorary Members of the Society.....	xxxiii
Active Members of the Society.....	xxxiv
Corresponding Members of the Society.....	lxxii

ILLUSTRATIONS

	Page
Plate 1—Stereogram of the Shawangunk Mountain.....	23
2—Lake Mohonk, looking southward.....	27
3—Eastern Face of Shawangunk Mountain, looking south- eastward.....	31
4—Relief Map of the Chattanooga District.....	63
5—Map of the Southern Appalachians, showing the deformed Cretaceous Peneplain.....	126
6—Map of the Southern Appalachians, showing the deformed Tertiary Peneplain.....	126
7—Drowning the Torrent.....	127
8—Map showing the Natural Divisions of the North Ameri- can Forests.....	139
9—District of Columbia.....	149
10—A Part of the Map of Juan de la Cosa, 1500, with Vignette of Samaná, from a Modern Chart.	186
11—Mappa Munde peinte sur Parchemin par Ordre de Henri II, Roi de France, 1532.....	188
12—Map of United States, showing Distribution of the Total Quantity of Heat during Season of Growth and Repro- ductive Activity.....	238
13—Map of United States, showing Mean Temperature of Hottest Six Consecutive Weeks of Year.....	238
14—Map of United States, showing Life Zones.....	238
15—Membership Diagram, National Geographic Society....	lxxxiii
DARTON: Figure 1—Cross-section of Eastern Ridges of Shawangunk Mountain through Lake Mohonk.....	
2—Cross-section of Eastern Ridges of Shawangunk Mountain through Lake Minnewaska.....	27
3—Lake Awosting.....	29
30	30
HAYES and CAMPBELL: Figure 1—Diagram showing Oscillations of Land Surface at Chattanooga, Tennessee.....	
2—Sketch Map of the Tennessee Gorge.....	99
3—Diagram showing Variation in Character of Cretaceous and Tertiary Sediments in Alabama	116
125	125
FERNOW: Figure 1—A German Spruce Forest under Management..	147
BAKER: Figure 1—District of Columbia.....	152

Illustrations.

v

	Page
REDWAY: Figure 1—A Part of the Map of Herrera, 1601, with Vignette of Watling Island (modern).....	187
2—Modern Map of Samaná, Crooked and Acklin Islands.....	191
BABB: Figure 3—The Antarctic Continent.....	221

PUBLICATIONS OF THE NATIONAL GEOGRAPHIC SOCIETY

REGULAR PUBLICATIONS

In addition to announcements of meetings and various circulars sent to members from time to time, the Society issues a single serial publication entitled *THE NATIONAL GEOGRAPHIC MAGAZINE*. During the first two years of the existence of the Society this serial was issued in quarterly numbers. With the beginning of the third year of the Society and the third volume of the *Magazine* the form of publication was changed, and the serial appeared at irregular intervals in parts or brochures (designated by pages and designed either for separate preservation or for gathering into volumes), consisting either of single memoirs or of magazine brochures made up of articles, notes, abstracts, and other geographic matter, together with the Proceedings and other administrative records of the Society. By reason of a change in the Society's season and fiscal year, volume VI extended from January 1, 1894, to May 31, 1895, and later volumes will coincide with the new season, namely, June 1 to May 31. Moreover, the numbers will be issued regularly hereafter, at periods to be announced in the first number of the new volume.

The *Magazine* is forwarded gratuitously to all members of the Society. The subscription price to the public will be, hereafter, \$2.00 a year. Members of the Society who want extra copies, and subscription agencies for the sale of the *Magazine*, are allowed a discount of thirty per cent.

NATIONAL GEOGRAPHIC MAGAZINE, VOLUMES I-VI

TABLE OF CONTENTS.	Prices.		Number of copies on hand for sale.
	To members and agents.	To the public.	
Volume I, 1889: 4 numbers, 337 pages, 16 plates, and 26 figures.....	\$1 40	\$2 00	
No. 1: pp. 1-98, i-ii, 6 plates..... Announcement. Introductory Address by the President, Gardiner G. Hubbard. Geographic Methods in Geologic Investigation; by W. M. Davis. The Classification of Geographic Forms by Genesis; by W. J. McGee. The Great Storm of March 11-14, 1888; Summary of Remarks by A. W. Greely. The Great Storm off the Atlantic Coast of the United States, March 11-14, 1888; by Everett Hayden. The Survey of the Coast; by Herbert G. Ogden. The Survey and Map of Massachusetts; by Henry Gannett. Proceedings. Certificate of Incorporation. By-laws. Officers, 1888. Members.	35	50	171
(vi)			

TABLE OF CONTENTS.	Prices.		Number of copies on hand for sale.
	To mem- bers and agents.	To the public.	
No. 2: pp. 99-182, 1 plate..... Africa, its Past and Future; Annual Address by the President, Gardiner G. Hubbard. Report— Geography of the Land; by Vice-President Herbert G. Ogden. Report—Geography of the Sea; by Vice-President George L. Dyer. Report—Geog- raphy of the Air; by Vice-President A. W. Greely. Report—Geography of Life; by Vice-President C. Hart Merriam. Annual Report of the Treasurer, Auditing Committee, and Secretaries. Certificate of Incorporation. Officers, 1889. By-laws. Members.	\$0 35	\$0 50	*
No. 3: pp. 183-276, 2 plates and 26 figures..... The Rivers and Valleys of Pennsylvania; by William Morris Davis. Topographic Models; by Cosmos Mindeleff. Abstract of Minutes. Inter- national Literary Contest.	35	50	116
No. 4: pp. 277-335, 7 plates..... Irrigation in California; by William Hammond Hall. Round about Asheville; by Bailey Willis. A Trip to Panama and Darien; by Richard U. Goode. Across Nicaragua with Transit and Ma- chéte; by R. E. Peary.	35	50	
Volume II, 1890: 5 numbers, 347 pages, 9 plates, and 11 figures.....	\$1 40	\$2 00	
No. 1: pp. 1-80..... On the Telegraphic Determinations of Longitudes by the Bureau of Navigation; by J. A. Norris. Re- port—Geography of the Land; by Vice-President Herbert G. Ogden. Report—Geography of the Air; by Vice-President A. W. Greely. Reports of Treas- urer, Auditing Committee, and Recording Secretary. Abstract of Minutes. Officers, 1890. Members.	35	50	6
No. 2: pp. 81-170, 1 plate and 7 figures..... The Rivers of Northern New Jersey, with Notes on the Classification of Rivers in General; by Wil- liam Morris Davis. A Critical Review of Bering's First Expedition, 1725-'30, together with a Transla- tion of his Original Report; by Wm. H. Dall.	35	50	*
No. 3: pp. 171-230, 6 plates and 4 figures..... The Arctic Cruise of the U. S. S. <i>Thetis</i> in the Summer and Autumn of 1889; by Charles H. Stock- ton. The Law of Storms Considered with Special Reference to the North Atlantic; by Everett Hay- den. The Irrigation Problem in Montana; by H. M. Wilson.	35	50	*

TABLE OF CONTENTS.	Prices.		Number of copies on hand for sale.
	To mem- bers and agents.	To the public.	
No. 4: pp. 231-286, 2 plates Korea and the Koreans; by J. B. Bernadou. The Ordnance Survey of Great Britain; by Josiah Pierce, Jr. Geographic Nomenclature; by Herbert G. Ogden, Gustave Herrle, Marcus Baker, and A. H. Thompson.	\$0 35	\$0 50	12
No. 5: pp. 287-339, i-viii. Officers, 1890. Contents and Illustrations, vol- umes I and II. Announcement. Proceedings. Third Annual Report of the Secretaries. Report of the Treasurer and Auditing Committee. Summary of Reports on the Mount Saint Elias Expedition. By- laws. Standing Rules of the Board of Managers. Rules relating to Publication. Officers, 1891. Mem- bers, March 25, 1891. Index to Volumes I and II.	18	25	3
Volume III, 1891: 5 numbers, 296 pages, 21 plates, and 8 figures.	\$1 60	\$3 00	169
No. 1: pp. 1-30, plate 1, March 28, 1891 South America; Annual Address by the Presi- dent, Gardiner G. Hubbard.	15	25	193
No. 2: pp. 31-40, April 30, 1891 Geography of the Land; Annual Report by Vice- President Herbert G. Ogden.	10	25	176
No. 3: pp. 41-52, May 1, 1891. Geography of the Air; Annual Report by Vice- President A. W. Greely.	10	25	169
No. 4: pp. 53-204 (with 8 figures), plates 2-20, May 29, 1891 An Expedition to Mount St Elias; by I. C. Rus- sell.	85	1 50	181
No. 5: Magazine brochure, pp. 205-261, i-xxxv, plate 21, February 19, 1892 The Cartography and Observations of Bering's First Voyage; by A. W. Greely. Height and Posi- tion of Mount Saint Elias; by I. C. Russell. The Heart of Africa; by E. C. Hore. Report of Com- mittee on Exploration in Alaska. Notes. Index. Officers, 1891. Contents. Illustrations. Publica- tions. Proceedings. Officers, 1892. Members, 1892.	40	75	197

TABLE OF CONTENTS.	Prices.		Number of copies on hand for sale.
	To mem- bers and agents.	To the public.	
Volume IV, 1892: 7 numbers, 237 pages, 20 plates, and 5 figures.....	\$1 75	\$3 00	
No. 1: pp. 1-18, March 26, 1892..... The Evolution of Commerce; Annual Address by the President, Gardiner G. Hubbard.	10	25	*
No. 2: pp. 19-84 (with 5 figures), plates 1-16, March 21, 1892..... Studies of Muir Glacier, Alaska; by Harry Field- ing Reid.	75	1 00	*
No. 3: pp. 85-100, March 18, 1892..... Geography of the Air; Annual Report by Vice- President A. W. Greely.	10	25	*
No. 4: pp. 101-116, plate 17, March 31, 1892..... The Mother Maps of the United States; by Henry Gannett.	15	25	*
No. 5: pp. 117-162, plates 18-20, May 15, 1892..... An Expedition through the Yukon District; by C. Willard Hayes.	30	50	*
No. 6: Magazine brochure, pp. 163-203, February 8, 1893..... The North American Deserts; by Johannes Walther. The Alaskan Boundary Survey; by T. C. Mendenhall, J. E. McGrath, and J. Henry Turner. Collinson's Arctic Journey; by A. W. Greely. Notes.	20	50	*
No. 7: Administrative brochure, pp. 209-213, i-xxiv, February 20, 1893..... Officers, 1892. Contents. Illustrations. Publi- cations. Fourth Annual Report of the Secretaries and Treasurer. Report of the Auditing Committee. Proceedings. Fifth Annual Report of the Secre- taries and Treasurer. Report of the Auditing Com- mittee. Index.	15	25	*
Volume V, 1893: 6 numbers, 331 pages, 21 plates, and 5 figures.....	\$1 95	\$3 00	24
No. 1: pp. 1-20 (with 2 figures), plates 1-5, April 7, 1893..... Discoverers of America; Annual Address by the President, Gardiner G. Hubbard.	35	50	24
No. 2: pp. 21-44, plates 6-19, March 20, 1893..... The Movements of our Population; by Henry Gannett.	30	50	27

TABLE OF CONTENTS.

	Prices.		Number of copies on hand for sale.
	To mem- bers and agents.	To the public.	
No. 3: pp. 45-58, plate 20, April 29, 1893..... Rainfall Types of the United States; Annual Re- port by Vice-President A. W. Greely.	\$0 15	25	37
No. 4: Magazine brochure, pp. 59-96 (with 3 fig- ures), plate 21, July 10, 1893..... The Natural Bridge of Virginia; by C. D. Walcott. The Geographical Position and Height of Mount Saint Elias; by T. C. Mendenhall. The Improve- ment of Geographical Teaching; by W. M. Davis. An Undiscovered Island off the Northern Coast of Alaska; by Marcus Baker, E. P. Herendeen, and A. W. Greely. The Geologist at Blue Mountain, Maryland; by C. D. Walcott. The Great Populous Centers of the World; by A. W. Greely. Our Youngest Volcano; by J. S. Diller.	25	50	58
No. 5: pp. 97-256, January 31, 1894..... Proceedings of the International Geographic Con- ference in Chicago, July 27-28, 1893: Introduction. Minutes of the Conference. Memoirs and Addresses. The Relations of Air and Water to Temperature and Life; by Gardiner G. Hubbard. The Relations of Geography to History; by Francis W. Parker. Nor- way and the Vikings; by Magnus Andersen. Geo- graphic Instruction in the Public Schools; by W. B. Powell. The Relations of Geology to Physiography in our Educational System; by T. C. Chamberlin. The Relations of the Gulf Stream and the Labrador Current; by William Libbey, Jr. The Arid Regions of the United States; by F. H. Newell. Recent Ex- plorations in Alaska; by Eliza Ruhamah Scidmore. The Caravels of Columbus; by Victor Maria Concas. In the Wake of Columbus; by Frederick A. Ober. Recent Disclosures concerning pre-Columbian Voy- ages to America in the Archives of the Vatican; by William Eleroy Curtis. Early Voyages along the Northwestern Coast of America; By George David- son.	50	75	112
No. 6: Administrative brochure, pp. 257-263, i-lxviii, May 5, 1894..... Officers, 1893. Contents. Illustrations. Publi- cations. Proceedings. Sixth Annual Report of the Secretaries and Treasurer. Report of the Auditing Committee. By-laws. Officers, 1894. Honorary Members. Members, 1894. Index.	40	50	185

TABLE OF CONTENTS.	Prices.		Number of copies on hand for sale.
	To mem- bers and agents.	To the public.	
Volume VI, 1894 and to May 31, 1895: 9 numbers, 291 pages, 15 plates, and 11 figures.....	\$2 10	\$3 00	*
No. 1: pp. 1-22, February 17, 1894.....	15	25	*
Geographic Progress of Civilization; Annual Ad- dress by the President, Gardiner G. Hubbard.			
No. 2: pp. 23-34 (with 3 figures), plates 1-3, March 17, 1894.....	15	25	*
Shawangunk Mountain; by N. H. Darton.			
No. 3: pp. 35-62, April 25, 1894.....	15	25	*
Weather Making, Ancient and Modern; by Mark W. Harrington.			
No. 4: pp. 63-126 (with 3 figures), plates 4-6, May 23, 1894.....	40	75	*
Geomorphology of the Southern Appalachians; by C. Willard Hayes and Marius R. Campbell.			
No. 5: pp. 127-148 (with 1 figure), plates 7 and 8, June 22, 1894.....	15	25	*
The Battle of the Forest; by B. E. Fernow.			
No. 6: pp. 149-178 (with 1 figure), plate 9, Novem- ber 1, 1894.....	25	50	*
Surveys and Maps of the District of Columbia; by Marcus Baker.			
No. 7: Magazine brochure, pp. 179-238 (with 3 fig- ures), plates 10-14, December 29, 1894.....	35	50	*
The First Landfall of Columbus; by J. W. Red- way. Japan; by D. W. Stevens. Geography of the Air; Annual Address by Vice-President A. W. Greely. Sir Francis Drake's Anchorage; by E. L. Berthoud. Note on the Height of Mount Saint Elias; by I. C. Russell. Geographic Notes; by Cyrus C. Babb. Laws of Temperature Control of the Geo- graphic Distribution of Terrestrial Animals and Plants; Annual Address by Vice-President C. Hart Merriam.			
No. 8: pp. 239-284, April 20, 1895.....	35	50	280
Oregon: its History, Geography, and Resources; by John H. Mitchell.			
No. 9: Administrative brochure, pp. lxxxiii, plate 15, October 31, 1895.....	15	25	500
Officers, 1894. Contents. Illustrations. Publi- cations. Proceedings. Seventh Annual Report of the Recording Secretary and Treasurer. Report of the Auditing Committee. By-laws. Officers, Sea- son of 1895-'96. Members. Index.			

* Edition exhausted. A limited number of copies will be purchased by the Society upon notification of copies for sale.

Orders for volumes or single numbers may be sent to booksellers or direct to the Secretary of the Society, 1515 H street N. W., Washington, D. C.

IRREGULAR PUBLICATIONS

In the interest of exact bibliography, the Society takes cognizance of all publications issued either wholly or partly under its auspices. Each author of a memoir published in *THE NATIONAL GEOGRAPHIC MAGAZINE* receives 25 copies, and is authorized to order any number of additional copies at a slight advance on the cost of press-work and paper. Contributors to the magazine are authorized to order any number of copies of their contributions at a slight advance on cost of presswork and paper, provided these separates bear the original pagination and a printed reference to the serial and volume from which they are extracted; such separates are, of course, bibliographically distinct. The *Magazine* is not copyrighted, and articles may be reprinted freely; a record of such reprints, so far as known, is kept.

PROCEEDINGS
OF THE
NATIONAL GEOGRAPHIC SOCIETY

JANUARY, 1894, TO MAY, 1895

Abstract of Minutes

January 12, 1894.

89th meeting.

Assembly Hall of Cosmos Club, 8 p m. Vice-President Mendenhall in the chair. Attendance, 125.

Report of Auditing Committee, appointed the 5th instant, read and approved.

The general topic, "Surveys and Explorations in Southeastern Alaska for the Alaska Boundary Commission," was discussed by Dr T. C. Mendenhall, Mr J. E. McGrath, Mr H. G. Ogden, Mr W. C. Hodgkins, Mr P. A. Welker, and Mr H. P. Ritter. The subject was illustrated by maps and lantern slides.

January 19, 1894.

Special meeting.

National Rifles' Hall, 8 p m. President Hubbard in the chair. Attendance, 700.

Rev E. C. Smith delivered an illustrated lecture on The Ascent of Mount Rainier.

January 8, 11, 15, 18, 22, and 25, 1894.

Special course of afternoon lectures.

Large Hall of Columbian University, 4.15 p m.

Special course by Mr G. K. Gilbert on The Shaping of the Earth's Surface, under the divisions (1) Uplift and Erosion; (2 and 3) Water Work; (4) Interaction; (5) Ice Work; (6) Wind Work.

*January 26, 1894.**90th meeting.*

Assembly Hall of Cosmos Club, 8 p m. President Hubbard in the chair. Attendance, 75.

The thanks of the Society were voted to Mr G. K. Gilbert for his able and instructive course of afternoon lectures.

The general topic, Alaskan Boundary Surveys, was discussed in detail by Mr J. A. Flemer, Mr E. F. Dickins, Mr O. H. Tittmann, Mr J. F. Pratt, and Lieutenant A. P. Niblack, U. S. N., the last three of whom used lantern-slide illustrations.

*February 2, 1894.**91st meeting.*

Builders' Exchange Hall, 8 p m. Attendance, 300.

Annual address by the President, Hon Gardiner G. Hubbard, on The Geographic Progress of Civilization, illustrated by lantern slides.

*February 9, 1894.**92d meeting.*

Assembly Hall of Cosmos Club, 8 p m. President Hubbard in the chair.

Hon Edwin Willits introduced the speaker, Dr C. Hart Merriam, who read a paper on Geographic Discoveries Made by the Biological Expeditions of the United States Department of Agriculture.

*February 16, 1894.**Special meeting.*

Builders' Exchange Hall, 8 p m. President Hubbard in the chair. Attendance, 500.

Hon George C. Perkins, United States Senate, delivered an illustrated lecture on Pacific and Arctic Ocean Whaling Industry.

*February 23, 1894.**93d meeting.*

Assembly Hall of Cosmos Club, 8 p m. President Hubbard in the chair. Attendance, 50.

Professor Mark W. Harrington read a paper on Weather Making, Ancient and Modern.

*March 2, 1894.**Special meeting.*

Builders' Exchange Hall, 8 p m. President Hubbard in the chair. Attendance, 300.

Major J. W. Powell delivered an address upon The Water Supply of the United States.

March 9, 1894.

94th meeting.

Assembly Hall of Cosmos Club, 8 p m. Vice-President Gannett in the chair. Attendance, 50.

Dr C. Willard Hayes delivered an address upon The Physiography of a Portion of the Southern Appalachians, as Illustrated by a Relief Map of the Chattanooga District; and Mr M. R. Campbell read a paper on Tertiary Changes in the Drainage of Southwestern Virginia.

March 16, 1894.

Special meeting.

National Rifles' Hall, 8 p m. President Hubbard in the chair. Attendance, 700.

Professor William H. Pickering delivered an illustrated lecture upon Explorations in the Andes of South America.

March 23, 1894.

95th meeting.

Assembly Hall of Cosmos Club, 8 p m. President Hubbard in the chair. Attendance, 125.

The amendments to the by-laws proposed February 23 were laid upon the table. (These proposed amendments created five classes of members—Active Members, Fellows, Honorary Members, Honorary Fellows, and Corresponding Members.)

Mr Marcus Baker delivered an address upon The Survey and Maps of the District of Columbia.

March 30, 1894.

Special meeting.

Builders' Exchange Hall, 8 p m. President Hubbard in the chair. Attendance, 550.

Mr Willard D. Johnson delivered an illustrated lecture upon The Problem of the Yosemite.

April 4, 1894.

Special meeting.

Assembly Hall of Cosmos Club, 8 p m. Mr W J McGee in the chair. Attendance, 125.

Dr Carl Lumholtz delivered an illustrated address upon The Cliff-dwellers of Mexico.

April 6, 1894.

96th meeting.

Assembly Hall of Cosmos Club, 8 p m. Mr G. K. Gilbert in the chair. Attendance, 50.

Mr Henry Gannett read a paper upon Statistics of our Industries.

*April 13, 1894.**Special meeting.*

Builders' Exchange Hall, 8 p m. President Hubbard in the chair.

Mr H. M. Wilson delivered an illustrated address entitled From Bombay to the Himalayas.

*April 19, 1894.**97th meeting.*

Assembly Hall of Cosmos Club, 8 p m. Mr Henry Gannett in the chair. Attendance, 75.

The general topic was The Public Lands of the United States, discussed under the following heads and by the following speakers: The National Domain, by Mr F. H. Newell; The Texas Land System, by Mr R. U. Goode; The Public Lands of Idaho, by E. T. Perkins, Jr.; and The Public Domain in its Social Aspect, by Mr Arthur P. Davis. The papers were discussed by Mr J. B. Thompson and Mr W. A. Croffut.

*April 20, 1894.**Field meeting.*

Eighty members and guests attended an excursion to Virginia Beach and the Dismal Swamp. Mr G. K. Gilbert and Dr David T. Day took charge of the two parties, and in the evening a meeting was held at the Princess Anne Hotel, Virginia Beach.

*April 21, 1894.**Special meeting.*

National Rifles' Hall, 8 p m. President Hubbard in the chair. Attendance, 500.

Mr Frank Hamilton Cushing delivered an illustrated lecture upon The Geographic Origin and Distribution of the Pueblo Indians.

*May 4, 1894.**98th meeting.*

Assembly Hall of Cosmos Club, 8 p m. Mr G. K. Gilbert in the chair. Attendance, 125.

Mr Henry Farquhar, in behalf of the excursion party to the Dismal Swamp, thanked the committee for the able and efficient manner in which the plans were carried out.

Mr R. T. Hill delivered an illustrated lecture upon The Mountains of Mexico, and remarks were made by Mr H. M. Wilson and Señor Don M. Romero, the Mexican minister.

May 11, 1894.

Special meeting.

Builders' Exchange Hall, 8 p m. President Hubbard in the chair. Attendance, 600.

Mr Paul B. Du Chaillu delivered an illustrated lecture upon The Dwarfs and Forests of Central Africa.

May 18, 1894.

99th meeting.

Assembly Hall of Cosms Club, 8 p m. Dr C. Hart Merriam in the chair. Attendance, 75.

Dr T. C. Mendenhall read a paper upon The Northeastern Boundary of the United States.

Professor R. T. Hill spoke of The Geography of Cuba; and Professor C. V. Riley discussed The Periodic Appearance of the Cicada.

May 25, 1894.

Special meeting.

Builders' Exchange Hall, 8 p m. President Hubbard in the chair. Attendance, 500.

Mr Alfred F. Sears delivered an illustrated lecture upon Peru.

June 1, 1894.

100th meeting.

Large Hall of Columbian University, 8 p m. President Hubbard in the chair. Attendance, 250.

Letters of congratulation to the Society upon the occasion of its one hundredth regular meeting were read from Hon Charles P. Daly, president of the American Geographical Society, and from Mr P. S. Moxom, president of the Appalachian Mountain Club. General A. W. Greely, U. S. A., spoke upon The Work of Foreign Geographic Societies, and remarks were made by Bishop John J. Keane, Hon J. H. Outhwaite, Dr J. C. Welling, and Mr Charles D. Walcott.

(For remaining meetings, up to May 31, 1895, see accompanying Calendar, season of 1894-'95.)

NATIONAL GEOGRAPHIC SOCIETY CALENDAR, SEASON OF
1894-'95

- Oct. 19.* Japan: its Geography, Resources, and Future,
Hon D. W. Stevens
Introductory Remarks by His Excellency Mr Kurino, the
Japanese Minister.
- Oct. 26.* The Elements of Physiography.....Major J. W. Powell
- Nov. 2.† The Science of Geography...General A. W. Greely, U. S. A.
The First Landfall of Columbus in the Light of Early Car-
tography.....Mr J. W. Redway
- Nov. 9.* Physiographic Processes.....Major J. W. Powell
- Nov. 16.† The Origin and Configuration of the Upper Alpine Passes,
Dr Lafayette C. Loomis
- Nov. 23.* From Cape Town into the Countries of the Ma-Shukulumbé,
Dr Emil Holub
- Nov. 30.† Recent Results in Oceanography,
Ensign Everett Hayden, U. S. N.
The Sigsbee Deep-sea Sounding Machine,
Commander C. D. Sigsbee, U. S. N.
The Outfit and Cruises of the U. S. F. C. S. *Albatross*,
Commander Z. L. Tanner, U. S. N.
- ‡Dec. 7.* The Land of the Midnight Sun.....Mr Paul B. Du Chaillu
- Dec. 14.† The Geographic Distribution of Soils,
Professor Milton Whitney
The Geographic Distribution of Life....Dr C. Hart Merriam
- Dec. 21.* The Political Geography of Asia.....Hon John W. Foster
- Dec. 28. The Economic Aspects of Erosion....Professor N. S. Shaler
Joint Meeting with American Forestry Association, in the
National Museum. Introductory Remarks by Hon J.
Sterling Morton, Secretary of Agriculture.
- Jan. 4.* Labor and Industries of the South....Hon Carroll D. Wright
- Jan. 11.† The Northern Appalachians Mr Bailey Willis
- Jan. 18.* The Nicaragua Canal.....Hon John R. Procter
- Jan. 25.† The Pikean, Julian, Plantagenian, and Itasca Sources of
the MississippiElliott Coues, M. D.
- ‡Feb. 1.* The Seine, the Meuse, and the Moselle,
Professor William M. Davis
- Feb. 8.† Topographic Forms,
Major Gilbert Thompson, Mr G. W. Littlehales
- ‡Feb. 15.* Shakespeare's England.....Rev G. Arbuthnot
- Feb. 22.† Practical Results of the Bering Sea Arbitration,
Mr J. Stanley-Brown
- ‡Mar. 1.* Recent Discoveries in Assyria and Babylonia,
Rev Dr Francis Brown
(xviii)

- ‡Mar. 8. || The International Boundary between Mexico and the United States Mr A. T. Mosman,
Mr Stehman Forney,
Captain E. A. Mearns, U. S. A.
- ‡Mar. 15.* The Ottoman Empire..... Dr Cyrus Adler
- ‡Mar. 18. ¶ Washington to Pittsburg and to Niagara Falls:
Across the Appalachians Dr David T. Day
Side Trip to Niagara Falls Mr G. K. Gilbert
- Mar. 20. Reception at the Arlington Hotel, Washington, D. C.,
9 to 12 p m.
- ‡Mar. 22. ¶ Pittsburgh to Yellowstone National Park:
Pittsburgh to St Paul, through the Oil and Gas Regions,
Professor Edward Orton
St Paul to Yellowstone National Park; Wonderland of
the Yellowstone..... Mr Henry Gannett
- ‡Mar. 22. || The Alaskan Boundary Survey,
Mr J. E. McGrath, Mr J. F. Pratt, Mr H. P. Ritter
- ‡Mar. 25. ‡ Yellowstone National Park to Sacramento:
The Northern Rockies; Down the Columbia; Mount
Rainier and Portland..... Mr E. T. Perkins, Jr.
Portland to Crater Lake; Mount Shasta and Sacramento,
Mr J. S. Diller
- ‡Mar. 29. ‡ Sacramento to Northern Arizona:
Sacramento; the Golden Gate; Yosemite; Los Angeles;
San Bernardino..... Mr Arthur P. Davis
From San Bernardino across the Deserts to San Francisco
Mountain, Arizona..... Major J. W. Powell
- Mar. 29.* Oregon: its Geography, History, and Resources,
Hon J. H. Mitchell
- ‡April 2. ‡ The Grand Canyon and Sonora, Mexico:
Salt Lake City to the Grand Canyon; a Winter in the
Depths of the Canyon..... Mr Charles D. Walcott
Prescott, Phoenix, and Tucson, to Sonora, Mexico; Visit
to the So-called Cannibals..... Mr W J McGee
- ‡April 4. ‡ The Zulu-Ma-Atabelé, and Modes of Travel in South Africa,
Dr Emil Holub
- ‡April 5. ‡ Across the Rocky Mountains to Denver:
Northern Arizona, the Rio Grande, and across the Moun-
tains to Denver..... Professor A. H. Thompson
The Home of the Pueblo Indians,
Mr Frank Hamilton Cushing
- April 5. ‡ Some Physical Features of Lake Superior,
Professor Mark W. Harrington
- ‡April 8. ‡ Denver to Washington:
Denver to Pueblo, down the Arkansas River, and across
the Plains to St Louis..... Mr F. H. Newell
St Louis to Washington; the Great Caves of Kentucky
and Virginia..... Major Jed. Hotchkiss

- April 12. || The Physical Geography, Geology, Agriculture, Religions, and
Missionary Literary Institutions of the Turkish Empire,
Rev Henry H. Jessup, D. D.
- ‡April 19. † The Geography and Geology of Costa Rica and Panama,
Mr Robert T. Hill
- ‡April 26. * The Antiquities and Aborigines of Peru,
Mr Frank Hamilton Cushing
- ‡April 29. † Siberia: its Geography and Resources. . . Mr George Kennan
- May 3. * Fredericksburg and Vicinity; a Symposium Preparatory to
the Field Day:
Geography and Geology (15 minutes) . . Mr N. H. Darton
Surveying, Mapping, and Bridging (15 minutes),
Major Gilbert Thompson
- The Battles:
* As seen from the Northern Side (20 minutes),
General John Gibbon, U. S. A.
As seen from the Southern Side (20 minutes),
Major Jed. Hotchkiss, C. S. A.
- May 4. Excursion and Field Meeting, Fredericksburg, Virginia, 9 a m
to 6 p m.
- ‡May 10. * President's Annual Address: Russia. (Joint Meeting of the
Scientific Societies.) Hon Gardiner G. Hubbard
- May 17. † The United States Commission of Fish and Fisheries and its
Relations with the Navy . . Commander Z. L. Tanner, U. S. N.
- ‡May 24. || The Geography and Geology of Costa Rica and Panama. (Re-
peated by request.) Mr Robert T. Hill
- May 31. † Annual Meeting for Reports, Action on Amendments to By-
laws, and Election of Officers.

* National Rifles' Hall, 8 to 9.15 p m.

† Cosmos Club Hall, 8 to 10 p m.

‡ National Rifles' Hall, 4.15 to 5.30 p m.

§ Lecture illustrated by lantern slides.

¶ Columbian University, 8.15 to 9.30 p m.

¶¶ Columbian University, 4.15 to 5.30 p m.

SEVENTH ANNUAL REPORT OF THE RECORDING SECRETARY

(Presented to the Society May 31, 1895)

OFFICE OF THE SECRETARY,
1515 H STREET N. W.,
WASHINGTON, D. C., *May 31, 1895.*

The season ending today has been one of the most successful in the annals of the Society, not only as regards increase of membership, but by reason of the great interest shown in the meetings, the large attendance of members and guests, and the character and number of the papers read.

The present membership is 1,178, consisting of 893 active, 274 corresponding, and 11 honorary members. Of this total number 423 have been elected since January 1, 1894, and 365 since June 1, 1894, numbers largely in excess of those elected during a similar period at any former time in our history.

To illustrate graphically the number of members elected each month since the Society was organized (in January, 1888), the length of time each member has remained in the Society, and the present membership, the accompanying membership diagram has been prepared. A glance at this diagram indicates very clearly the fact that our membership has increased very rapidly, and that a comparatively small proportion of those elected discontinue their membership. (See Plate 15.)

The change in the Society's fiscal year from the calendar year to that of the year from June 1 to May 31, now in effect, has of course been attended with some little embarrassment in connection with the publication of the *Magazine*, the dues of members, etc, but the great advantages of the change more than outweigh such temporary difficulties. By far the greater part of the energy of the Society is expended during the winter season, and it is therefore very desirable that its management should be continuous from summer to summer, rather than that there should be a periodic change, or at least liability to change, of its Board of Managers in the midst of the season of its greatest activity.

Owing to this change, the period now under review covers the interval from January 1, 1894, to date, but for comparison with future seasons, and as a just indication of what may fairly be expected during each coming season, it is of interest to review some of the principal features of our operations during the period from October last up to the present time.

During this season we have had 17 regular meetings and 28 special meetings, the latter including the reception, field meeting, and joint meeting of the Scientific Societies, making a total of 45 meetings, with 75 speakers. The average attendance at the regular or technical meetings (held for the most part in the Assembly Hall of the Cosmos Club) has been 170, and at the special or popular meetings (in National Rifles' Hall), 777. As a comparative measure of the Society's activity it need only be added that in 1890 there were but 17 meetings held altogether, with far smaller average attendance.

Especial interest has been shown in a course of illustrated afternoon lectures descriptive of a trip across the continent and back again, each lecture by two speakers who took up the thread of the story, in turn, and described in a popular way, and with a very fine series of lantern illustrations, the geography and most striking natural and artificial features of the region traversed. Each speaker was a recognized authority regarding his portion of the route, and the course proved to be a brilliant and gratifying success—so much so, in fact, that a similar course will undoubtedly be a feature of each of our coming seasons.

The accompanying calendar gives a brief but complete résumé of the entire series of lectures, so that but little more need be said. Reference should be made, however, to the very successful reception at The Arlington the evening of March 20th, and the excursion to Fredericksburg, Va., on May 4th, where a field-meeting was held and the day passed amidst scenes of great natural beauty as well as of great geographic and historic interest. None of the expense of the reception or excursion was charged to the Society's treasury, but those who participated paid the entire cost, which was, of course, comparatively small, by reason of the excellent management by the committees and the facilities secured by the organization of the Society.

Mention should be made of a lecture delivered under the auspices of the Society by Mrs Robert E. Peary, in aid of the fund to equip an expedition to bring her husband, the distinguished

arctic explorer, home this summer, at the close of his season's work in northern Greenland, rather than leave him there to endure the useless delay and hardship of another arctic winter. Our Board of Managers, as a slight recognition of interest in and approval of the plan, voted to appropriate a sum sufficient to pay the expenses of a lecture by Mrs Peary and to give her the gross receipts, and in this way, thanks largely to her own energy and the interest of the public in her fascinating story of arctic life, the Society was enabled, at comparatively small expense, to add \$400 to the fund—a result especially gratifying by reason of the fact that Lieutenant Peary is one of our own members. This incident furnishes in itself a good example of the practical effectiveness of our organization in aiding actual geographic research, as well as in increasing and diffusing geographic knowledge.

Strong support has been given during past years by our Board of Managers to the project of uniting into a closer union the various scientific societies of this city, and during the past season this object has been consummated in a way that is gratifying to its earnest supporters and at the same time satisfactory to the more conservative. The present organization and powers of the Joint Commission seem to be worthy of strong support and approval, and there is every reason to believe that its practical results will be satisfactory and mutually advantageous to the societies represented.

The meeting this summer in London of the Sixth International Geographical Congress promises to mark an epoch in the history of geographic progress, and this Society will be represented by a delegation which, by authority of the Board of Managers, will extend a cordial invitation to the Congress to hold its next meeting in this city. It is hoped that this eminent and influential body will soon honor this country with its presence, and our Society can then justly claim to have aided very greatly in the advance of geographic knowledge in the United States, as the far-reaching influence of such a meeting can hardly be overestimated.

The library of the Society has received, in addition to the regular exchanges, a large number of valuable gifts, notable amongst which have been complete sets of Wheeler's and Ives' Reports, through the courtesy of the Chief of Engineers, U. S. Army; several very handsome volumes from His Imperial Highness the Archduke Ludwig Salvator, of Austria; and a

number of standard geographic works from Mr E. L. Berthoud, of Golden, Colorado. The library is now well worthy of a larger and more accessible room than has been available hitherto; this matter is now under consideration and will doubtless soon be settled in a way that will add greatly to our facilities for geographic study.

THE NATIONAL GEOGRAPHIC MAGAZINE, the official publication of the Society, has maintained its high standard in spite of the difficulties of publication by a committee whose members can ill afford the time and effort required. It is but fair to state that by far the greater part of the work and responsibility has fallen to the chairman of the committee, Mr W J McGee, to whom credit for results achieved, in spite of many difficulties, is therefore largely due. The accompanying complete statement of the contents of the *Magazine*, volumes I to VI, with a list of prices and number of copies on hand for sale, will, it is thought, be of general interest to members and others. From this statement it will be seen, too, that it is proposed to publish the *Magazine* hereafter bimonthly.

For the coming season it is thought desirable to secure still larger halls for both our popular and technical meetings, as we have entirely outgrown those hitherto used. Arrangements have already been made to bring about this result, and the coming season will doubtless show a still larger membership and attendance. It is likely, too, that a plan will be perfected by which regular notices of meetings can be sent to every member—if not weekly, at least every two weeks—in place of the calendars that have been issued from time to time, at irregular intervals, during the past year. It should be understood, however, that the advantages of such regular notices have not at any time been underestimated, but the item of expense for postage has been very heavy—indeed, far more so than one can realize at first thought. With 900 active members a weekly notice—even using postal cards—costs, including printing and addressing, about \$12.00, or say \$400 a year, and it was thought that if half of this amount could be saved, without material inconvenience, it was well worth trying; the printing is a small item in comparison with the expense of postage, and the calendars that have been issued, in conjunction with the notices in the daily press each week, would seem to answer the purpose almost as well and at far less expense.

The thanks of the Society are due to the authorities of Columbian University for the use upon several occasions of their large hall free of expense; to the many able and eminent men who have contributed so largely to the value and success of our meetings, animated solely by their love of the subject and their appreciation of the objects of the Society; and to the members of the Board of Managers, who have devoted so much of their time and energy to the duties of their positions, feeling sufficiently rewarded by the growth and success of the Society. Without such earnest and voluntary assistance on every side it would, of course, be wholly impossible to accomplish what we are doing, even with largely increased annual dues, and the fact that this Society, although so young in years, is so firmly established and doing such effective work can justly be regarded as creditable to the United States, and especially to its birthplace, the city of Washington.

EVERETT HAYDEN,
Recording Secretary.

SEVENTH ANNUAL REPORT OF THE TREASURER

(Presented to the Society May 31, 1895)

WASHINGTON, D. C., May 31, 1895.

To the President and Members, National Geographic Society:

I have the honor to submit herewith my annual report, together with statement of assets as at the close of the year ending May 31.

On account of alterations made in the by-laws, by which the end of the fiscal year was changed from December 31 to May 31, the present account covers a period from January 1, 1894, to May 31, 1895.

The receipts for dues for the season of 1894 amounted to \$2,811, while those for that of 1895 amount to \$3,642, or an increase of nearly 30 per cent.

The assets of the Society consist of:

American Security and Trust Company 5 per cent bonds.....	\$450 00
Cash on hand, deposited with Bell & Co.....	\$107 49
in possession of Secretary.....	50 00
	<hr/>
	157 49
Unpaid dues for the years 1894 and 1895	1,321 00
	<hr/>
	\$1,928 49

All bills up to this date have been paid, and therefore there are no liabilities.

Respectfully submitted.

C. J. BELL,
Treasurer.

Dr.

THE TREASURER IN ACCOUNT WITH THE NATIONAL GEOGRAPHIC SOCIETY.

Cr.

1895.			
May 31.	To balance on hand January 5, 1894.....	\$307 80	
	Cash received for dues: 1892..	\$30 00	
	" " " 1893..	233 00	
	" " " 1894..	2,809 00	
	Cash received for dues:		
	Season 1894-'95.....	3,642 00	
	" 1895-'96.....	99 00	
	Cash received for life membership.....	50 00	
	Interest on investment.....	6,863 00	
	Receipts from sale of magazine.....	17 76	
	" " " lecture tickets....	136 33	
	Proceeds from exhibit of Sella collection....	29 50	
	Loan from American Security and Trust Co.....	15 55	
	Loan from Bell & Co.....	250 00	
	Amount received from American Book Co. for monographs.....	150 00	
		400 00	
		<hr/>	
		\$8,169 94	
	May 31. By cash paid for:		
	Publication of magazine.....	\$1,653 25	
	Expenses of meetings.....	2,407 14	
	Salaries of Secretaries.....	1,584 00	
	Sundries, including printing, postage, freight, stationery, furniture, joint directory, etc.....	1,241 91	
	Magazines for library.....	14 50	
	Investment of life membership dues.....	150 00	
	Repayment of loan, \$150, and interest, \$2.24 (Bell & Co.).....	152 24	
	Repayment of loan, \$250, and interest, \$9.41 (American Security and Trust Co.).....	259 41	
	Rent of Secretary's office.....	75 00	
	Authors' rights in monographs.....	400 00	
	Expenses of Peary lecture.....	75 00	
	Balance on hand with Bell & Co... \$107 49		
	With Secretary.....	50 00	
		<hr/>	
		157 49	
		<hr/>	
		\$8,169 94	

WASHINGTON, D. C., May 31, 1895.

C. J. BELL, Treasurer.

Report of the Treasurer.

xxvii

REPORT OF THE AUDITING COMMITTEE

(Presented to the Society May 31, 1895)

WASHINGTON, D. C., July 10, 1895.

The President and Members of the National Geographic Society:

We, a committee appointed at the annual meeting of May 31, 1895, to audit the accounts of the Treasurer for the period from January 1, 1894, to May 31, 1895, beg to submit the following report:

The Treasurer's statement of receipts, consisting of dues from members, life-membership fees, interest on investments, sale of magazines and tickets, and of amounts received from miscellaneous sources, has been examined and found correct, as shown by the books of his office.

The vouchers for expenditures have been examined and found correct. The return checks (except fifteen which had not been cashed at time of the closing of the Treasurer's account) were compared with the vouchers and found to agree.

We have examined the bank book, showing the account with Messrs Bell & Co., and found the cash balance to be four hundred and twenty-nine dollars and sixty cents, which exceeded the Treasurer's reported balance of one hundred and seven dollars and forty-nine cents by three hundred and twenty-two dollars and eleven cents, the amount of the fifteen return checks referred to in the paragraph above, one of which represented \$50 advanced to the Secretary.

The amount of outstanding dues reported by the Treasurer as \$1,326 was carefully examined and found correct. We have prepared a full list of these outstanding dues for the use of the next Auditing Committee.

The four bonds of \$100 each and one of \$50, registered in the name of the Society, were inspected by us in the hands of the Treasurer.

WM. A. DECAINDRY,

H. C. RIZER,

Auditing Committee.

(xxviii)

BY-LAWS

AS ADOPTED WITH AMENDMENTS UP TO MAY 31, 1895

ARTICLE I. NAME.

The name of this Society is the "NATIONAL GEOGRAPHIC SOCIETY."

ARTICLE II. OBJECT.

The object of this Society is the increase and diffusion of geographic knowledge.

ARTICLE III. MEMBERSHIP.

The members of this Society shall be persons who are interested in geographic science. There may be three classes of members—active, corresponding, and honorary.

Active members only shall be members of the corporation; shall be entitled to vote and may hold office.

Persons residing at a distance from the District of Columbia may become corresponding members of the Society. They may attend its meetings, take part in its proceedings, and contribute to its publications.

Persons who have attained eminence by the promotion of geographic science may become honorary members.

Corresponding members may be transferred to active membership, and, conversely, active members may be transferred to corresponding membership by the Board of Managers.

The election of members shall be entrusted to the Board of Managers.

ARTICLE IV. OFFICERS.

The officers of the Society shall be a President, six Vice-Presidents, a Treasurer, a Recording Secretary, and a Corresponding Secretary.

The above-mentioned officers, together with eight other members of the Society, known as Managers, shall constitute a Board of Managers. Officers and Managers shall be elected annually, by ballot, a majority of the votes cast being necessary to an election; they shall hold office until their successors are elected; and shall have power to fill vacancies occurring during the year.

The President, or, in his absence, one of the Vice-Presidents, shall preside at the meetings of the Society and of the Board of Managers; he shall, together with the Recording Secretary, sign all written contracts and obligations of the Society, and attest its corporate seal; he shall deliver an annual address to the Society.

Each Vice-President shall represent in the Society and in the Board of Managers a department of geographic science, as follows:

Geography of the Land; Geography of the Sea; Geography of the Air; Geography of Life; Geographic Art; Commercial Geography.

The Vice-Presidents shall foster their respective departments within the Society; they shall present annually to the Society summaries of the work done throughout the world in their several departments.

They shall be elected to their respective departments by the Society.

The Treasurer shall have charge of the funds of the Society, shall collect the dues, and shall disburse under the direction of the Board of Managers; he shall make an annual report; and his accounts shall be audited annually by a committee of the Society and at such other times as the Board of Managers may direct.

The Secretaries shall record the proceedings of the Society and of the Board of Managers; shall conduct the correspondence of the Society; and shall make an annual report.

The Board of Managers shall transact all the business of the Society, except such as may be presented at the annual meeting. It shall formulate rules for the conduct of its business. Five members of the Board of Managers shall constitute a quorum at regular meetings and nine members at special meetings.

ARTICLE V. DUES.

The initiation fee for active members shall be two dollars, payable upon notice of election.

The annual dues of active members shall be five dollars, and of corresponding members two dollars.

The fiscal year and season of the Society shall begin on the first day of June and end on the thirty-first day of May, and the annual dues of members shall be payable on or before the last day of October, or, in the case of new members, within thirty days after election.

Annual dues may be commuted and life membership acquired by the payment of fifty dollars.

No member in arrears shall vote at the annual meeting, and the names of members two years in arrears shall be dropped from the roll of membership.

ARTICLE VI. MEETINGS.

Regular meetings of the Society shall be held on alternate Fridays, from November until May, and excepting the annual meeting they shall be devoted to communications. The Board of Managers shall, however, have power to postpone or omit meetings, when deemed desirable. Special meetings may be called by the President.

The annual meeting for the election of officers shall be the last regular meeting in May.

The Board of Managers shall set apart a time and place for the annual address of the President and Vice-Presidents.

A quorum for the transaction of business shall consist of twenty-five active members.

ARTICLE VII. PUBLICATIONS.

The Society shall publish a journal or periodical under the title *THE NATIONAL GEOGRAPHIC MAGAZINE*, which shall be sent to all members of the Society and may be placed on sale.

ARTICLE VIII. AMENDMENTS.

These by-laws may be amended by a two-thirds vote of the members present at any regular meeting, provided that written notice of the proposed amendment has been given, signed by at least ten active members, at a regular meeting held at least four weeks previously. They may also be amended by a two-thirds vote of the voters present at the annual meeting: provided, however, that written notice of the proposed amendment has been given at a regular meeting held at least four weeks previous to the annual meeting.

Printed notice shall be sent to all active members of amendments proposed for action at the annual meeting.

OFFICERS OF THE SOCIETY

SEASON OF 1895-'96

(*Elected at the Annual Meeting, May 31, 1895*)

President

GARDINER G. HUBBARD

Vice-Presidents

CHAS. W. DABNEY, JR, *Land*

HERBERT G. OGDEN, *Sea*

A. W. GREELY, *Air*

C. HART MERRIAM, *Life*

W. W. ROCKHILL, *Geographic Art*

HENRY GANNETT, *Commercial Geography*

Treasurer

CHARLES J. BELL

Recording Secretary

EVERETT HAYDEN

Corresponding Secretary

ELIZA R. SCIDMORE

Managers

MARCUS BAKER

H. F. BLOUNT

G. K. GILBERT

JOHN HYDE

W J MCGEE

F. H. NEWELL

W. B. POWELL

J. R. PROCTER

(xxxii)

MEMBERS OF THE NATIONAL GEOGRAPHIC SOCIETY

MAY 31, 1895

HONORARY MEMBERS

HIS EXCELLENCY GROVER CLEVELAND,
PRESIDENT OF THE UNITED STATES,
Washington, D. C.

DON CRISTÓBAL COLÓN DE TOLEDO DE LA CERDA Y GANTE,
DUKE OF VERAGUA AND MARQUIS OF JAMAICA,
Madrid, Spain.

SIR ARCHIBALD GEIKIE,
28 Jermyn street, London, England.

HONORABLE CHARLES P. DALY,
84 Clinton place, New York, N. Y.

DR GEORGE M. DAWSON,
Canadian Geological Survey, Ottawa, Canada.

EMMANUEL DE MARGERIE
132 rue de Grenelle, Paris, France.

DR JOHN MURRAY,
Challenger office, Edinburgh, Scotland.

BARON ADOLF E. NORDENSKIÖLD,
Stockholm, Sweden.

FERDINAND, FREIHERR VON RICHTHOFEN,
Kurfürstenstrasse 117, Berlin W., Germany.

HIS IMPERIAL HIGHNESS THE ARCHDUKE LUDWIG SALVATOR
OF AUSTRIA,
Vienna, Austria.

DR D. ESTANISLAO S. ZEBALLOS,
Buenos Ayres, Argentina.

ACTIVE MEMBERS

ABBE, PROFESSOR CLEVELAND,	Weather Bureau.
ABBOTT, MRS G. E.,	2611 Fourteenth street.
ABERT, S. T.,	722 Seventeenth street.
ABRAHAMS, MISS L. C.,	1106 New Hampshire avenue.
ACKERMAN, LIEUTENANT A. A., U. S. Navy,	Navy Department.
ACKLEY, LIEUTENANT COMMANDER S. M., U. S. Navy,	Commanding U. S. S. <i>Tantic</i> .
ADAMS, CYRUS C.,	512 Madison street, Brooklyn, N. Y.
ADAMS, MISS JULIA M.,	Fourth Auditor's office.
ADDISON, A. D.,	808 Seventeenth street.
ADDISON, MRS MURRAY,	1756 N street.
ADLER, DR CYRUS,	Smithsonian Institution.
ALBRECHT, F. J.,	175 Fifth avenue, Chicago, Ill.
ALDEN, COLONEL C. H., U. S. Army,	War Department.
ALEXANDER, T. H.,	1207 N street.
ALLEN, REVEREND ADOLOS,	905 I street.
ALLEN, MISS A. AUGUSTA,	Care of Miss Van Dyke, 1301 K street.
ALLEN, DR J. A.,	American Museum of Natural History, New York, N. Y.
ALLENDER, CHARLES H.,	703 Twelfth street N. E.
ALTON, EDMUND,	1706 Pennsylvania avenue.
ALVORD, MAJOR HENRY E.,	Lewinsville, Fairfax county, Virginia.
AMES, JOHN G.,	1630 Thirteenth street.
ANDERSON, JOS. W., M. D.,	1911 Eleventh street.

Active Members.

XXXV

ANDREWS, COLONEL G. L., U. S. Army,	2400 Columbia road.
ANDREWS, ENSIGN PHILIP, U. S. Navy,	U. S. S. <i>Raleigh</i> .
ANDREWS, WELLS F.,	Treasury Department.
APLIN, S. A., JUNIOR,	U. S. Geological Survey.
APPLEBY, J. F. R., M. D.,	1430 Thirty-third street.
ARRIAGA, SEÑOR DON A. LAZO, E. E. and M. P.,	1755 M street.
ASHLEY, OSBORN,	428 New Jersey avenue.
ASPINWALL, REVEREND J. A.,	17 Dupont circle.
ATKINSON, WADE H., M. D.,	618 Twelfth street.
AUERBACH, CARL,	800 Seventh street.
AUHAGEN, WILHELM,	Naval Observatory.
AYDELOTTE, WM.,	1352 Q street.
AYRES, MISS SUSAN C.,	1813 Thirteenth street.
BABB, CYRUS C.,	U. S. Geological Survey.
BABCOCK, MAJOR J. B., U. S. Army,	2005 G street.
BACON, MRS E. O.,	915 Sixteenth street.
BADGER, COMMODORE O. C., U. S. Navy,	1517 Twentieth street.
BAILEY, PAST ASSISTANT ENGINEER F. H., U. S. Navy,	Navy Department.
BAILEY, VERNON,	Agricultural Department.
BAKER, MARCUS,	U. S. Geological Survey.
BALDWIN, A. L.,	722 Sixth street N. E.
BALDWIN, H. L., JUNIOR,	U. S. Geological Survey.
BALDWIN, WM. D.,	25 Grant place.
BALL, CHARLES B.,	942 T street.

BALLANTYNE, WM.,	1328 Vermont avenue.
BALLINGER, MRS MADISON A.,	1303 Clifton street.
BALLOCH, GENERAL G. W.,	P. O. Box 557.
BARBER, A. L.,	802 F street.
BARBER, AMHERST W.,	1216 D street N. E.
BARCLAY, MRS MARY M.,	1771 Madison street.
BARKER, CAPTAIN A. S., U. S. Navy,	Navy Yard, Mare Island, Cal.
BARNARD, E. C.,	U. S. Geological Survey.
BARNARD, JOB,	1306 Rhode Island avenue.
BARNARD, R. P.,	1011 O street.
BARRINGTON, WM. L.,	3514 N street.
BARRY, CHARLES E.,	1421 G street.
BARTLE, R. F.,	Falls Church, Va.
BARTLETT, CAPTAIN J. R., U. S. Navy,	Providence, R. I.
BARTON, MISS MARY L.,	Treasury Department.
BATCHELDER, GENERAL R. N., U. S. Army,	War Department.
BATES, MAJOR F. H., U. S. Army,	1519 Thirty-first street.
BATES, DR HENRY H.,	The Portland.
BATES, MEDICAL DIRECTOR NEWTON L., U. S. Navy,	The Shoreham.
BEAMAN, GEORGE HERBERT,	2232 Massachusetts avenue.
BEAMAN, WM. M.,	U. S. Geological Survey.
BEARDSLEY, MEDICAL DIRECTOR G. S., U. S. Navy,	1704 Connecticut avenue.
BECKHAM, MISS BLANCHE,	2721 N street.
BELL, DR A. GRAHAM,	1331 Connecticut avenue.

Active Members.

xxxvii

BELL, PROFESSOR A. MELVILLE,	1525 Thirty-fifth street.
BELL, C. J.,	1405 G street.
BELL, MISS GERTRUDE A.,	Takoma Park, D. C.
BELT, E. OLIVER, M. D.,	The Albany.
BENNETT, F. V.,	The Arlington.
BENTON, FRANK,	Agricultural Department.
BERGER, ADOLPHE,	Pension Office.
BERGMANN, H. H.,	511 Seventh street.
BESSELIEVRE, S. I.,	Navy Department.
BEVERIDGE, M. W.,	1618 H street.
BIEN, JULIUS,	140 Sixth avenue, New York, N. Y.
BIEN, JOSEPH R., C. E.,	140 Sixth avenue, New York, N. Y.
BIEN, MORRIS,	General Land Office.
BIGELOW, PROFESSOR FRANK H.,	1625 Massachusetts avenue.
BIGELOW, OTIS,	Avenel, Md.
BIRCH, CHARLES E.,	Hydrographic office, Navy Department.
BLACK, H. CAMPBELL,	2516 Fourteenth street.
BLAIR, H. B.,	U. S. Geological Survey.
BLANCHARD, HONORABLE N. C.,	U. S. Senate.
BLOUNT, HENRY F.,	3101 U street.
BLOUNT, MRS L. E.,	3101 U street.
BOARDMAN, W. J.,	1801 P street.
BOCK, MISS M. C.,	619 Maryland avenue N. E.
BOND, MISS MARY E.,	813 First street.

BOND, SAMUEL R.,	13 Iowa circle.
BONHAM, JOHN M.,	Cosmos Club.
BOUDE, JOHN K., M. D.,	905 R street.
BOYLE, PEYTON,	1425 New York avenue.
BRACE, MRS HELEN D.,	1316 Thirtieth street.
BRADFORD, COMMANDER R. B., U. S. Navy,	1522 P street.
BRADLEY, HONORABLE A. C.,	2013 Q street.
BRADLEY, GEORGE L.,	2035 P street.
BRADLEY, MRS J. M.,	816 K street.
BRANNER, DR J. C.,	Leland Stanford Junior University, Cal.
BRECKINRIDGE, GENERAL J. C., U. S. Army,	War Department.
BREWER, MISS CLARA G.,	1009 Thirteenth street.
BREWER, MISS KATE,	1409 Thirtieth street.
BREWER, PROFESSOR WM. H.,	418 Orange street, New Haven, Conn.
BRIGHT, RICHARD R.,	130 B street N. E.
BRINTON, MRS E. S.,	1414 Fourteenth street.
BRITTON, A. T.,	622 F street.
BROCK, FENELON,	818 North Carolina avenue S. E.
BROOKS, ALFRED H.,	U. S. Geological Survey.
BROOKS, NEWTON M.,	233 Second street S. E.
BROWN, DR B. W.,	The Grafton
BROWN, EDWARD J.,	820 Twentieth street.
BROWNE, A. B.,	622 F street.
BROWNE, GENERAL WM. H.,	1645 K street.

Active Members.

xxxix

BRYAN, SAMUEL M.,	2025 Massachusetts avenue.
BUCK, MISS ADA P.,	635 Maryland avenue N. E.
BUCKMAN, MRS S. A.,	717 Tenth street.
BUELL, HERBERT L.,	1701 V street.
BULKLEY, BARRY,	1723 N street.
BUNGE, ADMIRAL F. M., U. S. Navy,	Com'd'g U. S. Naval Force, North Atlantic Station.
BURCHELL, N. L.,	1102 Vermont avenue.
BURDETT, GENERAL S. S.,	925 F street.
BURGESS, CHARLES H.,	Eighth and O streets.
BURGESS, EDWARD S.,	Normal College, New York.
BURR, WM. H.,	1017 K street.
BURTON, PROFESSOR A. E.,	Massachusetts Institute of Technology, Boston, Mass.
BUSEY, S. C., M. D.,	1545 I street.
BUTLER, MRS JO: CHESTNEY,	1416 K street.
BUTLER, W. H.,	609 C street.
BYRNES, W. F., M. D.,	35 B street S. E.
CAHILL, TIMOTHY,	1808 Sixteenth street.
CALVER, J. V., M. D.,	207 A street S. E.
CALVO, SEÑOR J. B.,	1509 Twentieth street.
CAMPBELL, MISS J. S.,	136 C street S. E.
CAMPBELL, M. R.,	U. S. Geological Survey.
CANTACUZENE, PRINCE, E. E. and M. P.,	1829 I street.
CAPPS, ASSISTANT NAVAL CONSTRUCTOR W. L., U. S. Navy,	Navy Department.
CARLETON, M. A.,	Agricultural Department.

CARMAN, MISS ADA,	1351 Q street.
CARPENTER, FRANK G.,	1318 Vermont avenue.
CARR, GENERAL E. A., U. S. Army,	The Richmond.
CARROTHERS, MISS C. F.,	1802 Twentieth street.
CARTER, LIEUTENANT R. G., U. S. Army,	Sixteenth street, Mt Pleasant.
CATLIN, CAPTAIN ROBERT, U. S. Army,	1428 Euclid place.
CERQUEIRA, GENERAL,	Care Brazilian Legation, 1809 N street.
CHANDLER, G. V.,	213 C street S. E.
CHANAY, HONORABLE J. C.,	1320 F street.
CHAPMAN, R. H.,	U. S. Geological Survey.
CHATARD, DR T. M.,	1758 K street.
CHERRY, CHARLES H.,	1115 S street.
CHESNUT, VICTOR K.,	Agricultural Department.
CHESTER, MISS J. M.,	1016 Eleventh street.
CHICKERING, PROFESSOR J. W.,	Kendall Green.
CHILDS, REVEREND T. S.,	1303 Connecticut avenue.
CHILTON, WILLIAM B.,	U. S. Coast and Geodetic Survey.
CHRISTIE, ALEX. S.,	General Delivery.
CHRISTIE, P. H.,	1934 Fifth street.
CLARK, CHARLES S.,	Dennison school.
CLARK, EGBERT A., M. D.,	600 Thirteenth street.
CLARK, E. B.,	U. S. Geological Survey.
CLARK, PROFESSOR ISAAC,	Howard University.
CLARK, MISS MAY S.,	Bureau of Ethnology.

CLARKE, MRS F. W.,	1612 Riggs place.
CLEMENTS, MISS L. H.,	1610 Q street.
CLOVER, LIEUTENANT COMMANDER RICHARDSON, U. S. Navy,	1535 New Hampshire avenue.
COLBY, HONORABLE LEONARD W.,	1325 Tenth street.
COLE, G. R. LEE, M. D.,	424 Seventh street S. W.
COLE, T. L.,	12 Corcoran building.
COLEMAN, MAJOR F. W.,	The Richmond.
COLTON, FRANCIS,	1635 Connecticut avenue.
COMSTOCK, MRS S. C.,	1464 Rhode Island avenue.
CONNELLY, MISS MARY,	1724 L street.
CONNOLLY, MISS LOUISE,	1416 Sixth street.
COOKE, J. G.,	3320 N street.
COON, CHARLES E.,	— —.
CORSON, MISS IDA,	914 Farragut square.
CORTHELL, E. L., C. E.,	71 Broadway, New York, N. Y.
COUES, DR ELLIOTT,	Smithsonian Institution.
COVARRUBIAS, SEÑOR DON M.,	1307 Connecticut avenue.
COVELL, L. W.,	Civil Service Commission.
COVILLE, FREDERICK V.,	Agricultural Department.
COWSILL, ARTHUR,	634 I street N. E.
COYLE, BERNARD J.,	834 Thirteenth street.
CRANE, AUGUSTUS, JUNIOR,	1344 F street.
CROSS, WHITMAN,	U. S. Geological Survey.
CROWELL, MRS A. S.,	933 I street.

CUMMINGS, PROFESSOR GEORGE J.,	Howard University.
CUMMINGS, MISS M. B.,	520 Sixth street.
CUMMINGS, MISS S. E.,	520 Sixth street.
CUNNINGHAM, MISS M. E.,	1234 Tenth street.
CUNNINGHAM, MRS W. O.,	1723 K street.
CURRY, W. W.,	1510 Ninth street.
CURTIS, WILLIAM ELEROY,	1801 Connecticut avenue.
CUSHING, FRANK HAMILTON,	Bureau of Ethnology.
CUSHING, MISS S. C.,	310 Indiana avenue.
CUSTIS, G. W. N., M. D.,	112 East Capitol street.
CUSTIS, MISS VILLA C.,	112 East Capitol street.
CUTTER, W. P.,	Agricultural Department.
DABNEY, DR C. W., JUNIOR,	The Concord.
DALBY, Z. LEWIS,	Civil Service Commission.
DALL, MRS CAROLINE H.,	1526 Eighteenth street.
DALL, DR WM. H.,	Smithsonian Institution.
DANA, GENERAL J. J., U. S. Army,	Cosmos Club.
DARTON, N. H.,	U. S. Geological Survey.
DAVIS, MISS ADELAIDE,	1320 Fifteenth street.
DAVIS, ALLAN,	Business High School, First street.
DAVIS, MRS J. T.,	1426 Q street.
DAVIS, PROFESSOR WM. M.,	2 Bond street, Cambridge, Mass.
DAWSON, MISS A. B.,	U. S. Geological Survey.
DAWSON, THOMAS F.,	U. S. Senate annex.

Active Members.

xliii

DAY, C. A.,	1405 G street.
DAY, DR DAVID T.,	U. S. Geological Survey.
DAY, E. WARREN,	38 Times building, New York, N. Y.
DE CAINDRY, WM. A.,	War Department.
DECKERT, DR E.,	1489 Howard avenue.
DE MERRITT, DR J. H.,	1335 Vermont avenue.
DENMAN, COLONEL H.,	1623 Sixteenth street.
DETWEILER, F. M.,	420 Eleventh street.
DICKENS, COMMANDER F. W., U. S. Navy,	Commanding U. S. S. <i>Constellation</i> .
DIEBITSCH, EMIL, C. E.,	2014 Twelfth street.
DIEUPONNÉ, FRANK J.,	Ohio National Bank building.
DILLER, J. S.,	U. S. Geological Survey.
DODGE, CHARLES C.,	Office Naval Intelligence, Navy Department.
DONN, E. W.,	1708 Sixteenth street.
DOOLITTLE, M. H.,	U. S. Coast and Geodetic Survey.
DOUBLEDAY, H. H.,	715 H street.
DOUGLAS, E. M.,	U. S. Geological Survey.
DOYLE, JOHN T.,	Civil Service Commission.
DUFFIELD, GENERAL W. W.,	U. S. Coast and Geodetic Survey.
DUNCKLEE, JOHN B.,	940 Westminster street.
DUTTON, MAJOR C. E., U. S. Army,	San Antonio, Tex.
DYER, FRANK L.,	918 F street.
DYER, LIEUTENANT G. L., U. S. Navy,	Annapolis, Md.
EASTERLING, H. V.,	Record and Pension Office.

EATON, LIEUTENANT COMMANDER J. G., U. S. Navy,	Navy Department.
EDDY, MRS MARY H.,	The Shoreham.
EDMANDS, PROFESSOR J. R.,	Harvard University, Cambridge, Mass.
EDSON, JOHN JOY,	1003 F street.
EDSON, JOSEPH R.,	927 F street.
EDWARDS, J. A.,	1009 Thirteenth street.
EGLESTON, N. H., M. D.,	1530 Sixteenth street.
EIMBECK, WILLIAM,	U. S. Coast and Geodetic Survey
ELDRIDGE, GEORGE H.,	U. S. Geological Survey.
ELIOT, CHARLES,	Brookline, Mass.
ELLIOTT, MISS ELIZABETH,	1114 Fifteenth street.
ELLIOTT, W. ST GEORGE, M. D.,	25 E. Forty-fourth street, New York, N. Y.
EMMONS, LIEUTENANT GEORGE T., U. S. Navy,	U. S. S. <i>Pinta</i> , Sitka, Alaska.
ERBACH, JOHN,	U. S. Geological Survey.
EVANS, H. C.,	U. S. Geological Survey.
EVANS, MRS JOHN O.,	1219 Sixteenth street.
EVANS, W. W., M. D.,	1756 M street.
EVERMANN, PROFESSOR B. W.,	1859 Harewood avenue.
EWELL, REVEREND PROFESSOR J. L.,	Howard University.
VON EZDORF, RICHARD,	918 N street.
FAIRFIELD, GEORGE A.,	1407 Staughton street
FAIRFIELD, W. B.,	U. S. Coast and Geodetic Survey.
FARIS, R. L.,	U. S. Coast and Geodetic Survey.
FARQUHAR, HENRY,	Agricultural Department.

Active Members.

xlv

FERNOW, B. E.,	Agricultural Department.
FFOULKE, CHARLES M.,	2013 Massachusetts avenue.
FISCHER, E. G.,	U. S. Coast and Geodetic Survey.
FISHER, LOUIS A.,	U. S. Coast and Geodetic Survey.
FISHER, ROBERT J.,	614 F street.
FITCH, CHARLES H.,	3025 N street.
FITCH, CHIEF ENGINEER H. W., U. S. Navy,	1518 Connecticut avenue.
FLEMER, J. A.,	414 A street S. E.
FLETCHER, MISS A. M.,	1437 Kenesaw avenue.
FLETCHER, L. C.,	U. S. Geological Survey.
FLETCHER, ROBERT, M. D.,	Army Medical Museum.
FLINT, MRS LAURA A.,	1734 I street.
FLINT, DR WESTON,	1213 K street.
FLYNN, HARRY F.,	U. S. Coast and Geodetic Survey.
FOOTE, ALLEN R.,	Takoma Park, D. C.
FOOTE, AUG. R. S.,	2021 H street.
FORNEY, STEHMAN,	U. S. Coast and Geodetic Survey.
FORREST, JULIUS C.,	
FOSTER, HONORABLE JOHN W.,	Hydrographic Office, Navy Department. 1405 I street.
FOSTER, PROFESSOR RICHARD,	Howard University.
FOWLER, E. H.,	1126 East Capitol street.
FOWLER, FRANCIS,	1449 Q street.
FRASER, DANIEL,	458 Pennsylvania avenue.
FRENCH, GEORGE N., M. D.,	1831 I street.

FRENCH, OWEN B.,	2011 F street.
FRISBIE, PROFESSOR EDGAR, U. S. Navy,	1607 Thirty-first street.
FROST, FLOYD T.,	Navy Department.
FULLER, MISS A. H.,	1321 Rhode Island avenue.
FULLER, THOMAS J. D.,	1509 H street.
GAGE, N. P.,	Seaton school.
GANNETT, HENRY,	U. S. Geological Survey.
GANNETT, S. S.,	U. S. Geological Survey.
GARDNER, C. L.,	1750 Q street.
GARNETT, HENRY WISE,	1319 New York avenue.
GARNIER, MISS M. A.,	6 Grant place.
GARRISON, MISS C. L.,	944 S street.
GERDINE, THOMAS G.,	General Land Office.
GIBBON, GENERAL JOHN, U. S. Army,	912 Nineteenth street.
GIBBS, EDWIN A., M. D.,	1608 Thirteenth street.
GIBBS, MISS H. H.,	2905 N street.
GIBSON, GEORGE,	Thirteenth street and Pennsylvania avenue.
GILBERT, G. K.,	U. S. Geological Survey.
GILL, DR THEODORE N.,	Smithsonian Institution.
GILMAN, PRESIDENT D. C.,	Johns Hopkins University, Baltimore, Md.
GLAVIS, GEORGE O., JUNIOR.,	U. S. Geological Survey.
GODDARD, F. J.,	3077 Dumbarton avenue.
GOODE, DR G. BROWN,	National Museum.
GOODE, RICHARD U.,	U. S. Geological Survey.

GOODFELLOW, EDWARD,	1618 Sixteenth street.
GOODRICH, HAROLD B.,	U. S. Geological Survey.
GORHAM, GEORGE C.,	1763 Q street.
GOUGH, RIGHT HONORABLE VISCOUNT,	1721 I street.
GRAHAM, MISS AGNES M.,	1714 Q street.
GRAHAM, ANDREW B.,	1230 Pennsylvania avenue.
GRANGER, F. D.,	U. S. Coast and Geodetic Survey.
GRANT, MISS A. L.,	507 East Capitol street.
GRAVES, MISS A. E.,	319 East Capitol street.
GRAVES, LOUIS B.,	2504 Fourteenth street.
GRAVES, WALTER H.,	Grow Indian Reservation, Mont.
GREGOR, W. H.,	Fourteenth and G streets.
GREELY, GENERAL A. W., U. S. Army,	War Department.
GREEN, BERNARD R.,	1738 N street.
GREEN, ASSISTANT ENGINEER C. M., U. S. Revenue Marine,	Treasury Department.
GREEN, DARIUS A.,	Navy Department.
GREENLEES, ARCHIBALD,	3129 U street.
GRICE, FRANCIS E.,	Navy Department.
GRIFFING, DON H.,	Civil Service Commission.
GUYER, MISS C. C.,	1911 N street.
GUZMÁN, DR DON HORACIO, É. E. and M. P.,	1623 Massachusetts avenue.
HACKETT, MERRILL,	U. S. Geological Survey.
HAGAN, MRS CORNELIA J.,	1332 V street.
HAGNER, JUDGE A. B.,	1818 H street.

HAGUE, DR ARNOLD,	U. S. Geological Survey.
HAINES, MISS M. S.,	Eighth street and Pennsylvania avenue S. E.
HAINES, THOMAS L.,	175 Fifth avenue, Chicago, Ill.
HALDERMAN, GENERAL JOHN A.,	Metropolitan Club.
HAMILTON, WILLIAM,	Bureau of Education.
HAMLIN, DR TEUNIS S.,	1306 Connecticut avenue.
HAMMA, REVEREND M. W.,	1336 Massachusetts avenue.
HANCE, T. F., M. D.,	Pension Office.
HANFORD, LEVI,	409 G street.
HANKS, H. M.,	446 L street.
HANSEN, JOHN,	605 H street.
HANSMANN, MAX,	1726 Corcoran street.
HANVEY, FRANK L.,	234 New Jersey avenue.
HARDING, MISS GENA R.,	The Shoreham.
HARDY, EDWARD D.,	Howard University.
HARLAN, MR JUSTICE JOHN M.,	Fourteenth street and Euclid avenue.
HARRINGTON, PROFESSOR MARK W.,	State University, Seattle, Wash.
HARRIS, HONORABLE WM. T.,	Bureau of Education.
HARROD, MAJOR B. M.,	Masonic building, New Orleans, La.
HART, PROFESSOR A. B.,	15 Appian way, Cambridge, Mass.
HART, AMOS W.,	712 Tenth street.
HASBROUCK, E. M.,	154 A street N. E.
HAY, PROFESSOR ROBERT,	P. O. box 562, Junction City, Kans.
HAYDEN, ENSIGN EVERETT, U. S. Navy,	1802 Sixteenth street.

Active Members.

xlix

HAYDEN, MISS LILIAN,	Bryn Mawr School, Baltimore, Md.
HAYES, MISS ANNIE M.,	Bureau of Engraving and Printing.
HAYES, DR C. WILLARD,	U. S. Geological Survey.
HAYWARD, H. A.,	926 Massachusetts avenue.
HAZARD, DANIEL L.,	U. S. Coast and Geodetic Survey.
HEAD, COLONEL J. F., U. S. Army,	2015 R street.
HEARD, HONORABLE AUGUSTINE,	Metropolitan Club.
HEARST, MRS P. A.,	1400 New Hampshire avenue.
HEATON, A. G.,	1618 Seventeenth street.
HEDRICK, H. B.,	Nautical Almanac Office.
HEILPRIN, G. F.,	1227 Pennsylvania avenue.
HENDERSON, J. B., JUNIOR,	Sixteenth street and Florida avenue.
HENDGES, MATTHEW,	General Land Office.
HENDRICKSON, PROFESSOR W. W., U. S. Navy,	1706 P street.
HENRY, A. J.,	948 S street.
HERBERT, HONORABLE HILARY A.,	Navy Department.
HERRLE, GUSTAVE,	Hydrographic Office, Navy Department.
HERRON, WILLIAM H.,	U. S. Geological Survey.
HEWETT, G. C.,	1744 Corcoran street.
HICKEY, MISS S. G.,	1322 Ninth street.
HIGGINS, M. T.,	Civil Service Commission.
HIGHT, SHERMAN,	1426 F street.
HILL, GEORGE WILLIAM,	Agricultural Department.
HILL, ROBERT T.,	U. S. Geological Survey.

HILLEBRAND, DR W. F.,	U. S. Geological Survey.
HILLER, A. H.,	Civil Service Commission.
HILLMAN, MYRA T.,	227 Third street.
HILLS, CHARLES W.,	1345 Vermont avenue.
HINMAN, RUSSELL,	806 Broadway, New York, N. Y.
HITT, HONORABLE R. R.,	1507 K street.
HITZ, JOHN,	Thirty-fifth and Q streets.
HODGKINS, W. C.,	U. S. Coast and Geodetic Survey.
HOFFMAN, EMIL O.,	Light-house Board, Treasury Department.
HOLDEN, MRS L. E.,	The Hollenden, Cleveland, Ohio.
HOLLERITH, HERMAN,	1521 Thirty-first street.
HOLT, HENRY PETER RENOUF,	Takoma Park, D. C.
HOLTZMAN, R. O.,	Tenth and F streets.
HOOD, JAMES F.,	622 F street.
HOPKINS, J. H.,	1407 F street.
HOPKINS, MISS M. G.,	2034 G street.
HORNBLOWER, J. C.,	1402 M street.
HORSFORD, MISS CORNELIA,	27 Cragie street, Cambridge, Mass.
HOSMER, EDWARD S.,	29 Nassau street, New York, N. Y.
HOTCHKISS, MAJOR JED,	Staunton, Va.
HOUGH, MISS HELEN M.,	202 Indiana avenue.
HOUGH, WALTER,	National Museum.
HOVEY, REVEREND DR H. C.,	60 High street, Newburyport, Mass.
HOWELL, D. J.,	918 F street.

Active Members.

li

HOWELL, E. E.,	612 Seventeenth street.
HOYT, HONORABLE JOHN W.,	Pacific building.
HUBBARD, HONORABLE GARDINER G.,	"Twin Oaks," Woodley lane.
HUDDLESON, S. M.,	Agricultural Department.
HUDSON, JOHN R., JUNIOR,	U. S. Geological Survey.
HUME, FRANK,	454 Pennsylvania avenue.
HUNT, MRS ALICE U.,	Tenley, D. C.
HUNT, C. B.,	District building.
HURD, HENRY M., M. D.,	Johns Hopkins Hospital, Baltimore, Md.
HUTCHINSON, JOHN,	1524 P street.
HUTCHINSON, W. J.,	1707 Massachusetts avenue.
HUTCHISON, MISS J. E.,	516 Third street.
HYAM, MISS V. W.,	1314 S street.
HYDE, MISS E. R.,	1326 I street.
HYDE, G. E.,	U. S. Geological Survey.
HYDE, JOHN,	Agricultural Department.
HYDE, MISS JOSEPHINE,	434 K street.
INCH, CHIEF ENGINEER PHILIP, U. S. Navy,	1748 P street.
IRISH, GENERAL CHARLES W.,	Agricultural Department.
JACKSON, REVEREND SHELDON,	The Concord.
JACKSON, MRS S. V.,	1711 P street.
JAMES, MRS J. F.,	1475 Kenesaw avenue.
JANNEY, B. T.,	1671 Thirty-first street.
JARVIS, LIEUTENANT D. H., U. S. Revenue Marine,	New Bedford, Mass.

JENNINGS, MISS H. R.,	1714 Johnson place.
JENNINGS, J. H.,	U. S. Geological Survey.
JEWELL, CLAUDIUS B.,	1324 Vermont avenue.
JOHNSON, A. B.,	Light-house Board, Treasury Department.
JOHNSON, MISS A. B.,	501 Maple avenue.
JOHNSON, H. L. E., M. D.,	1400 L street
JOHNSON, J. B.,	Howard University.
JOHNSON, JAMES L.,	U. S. Geological Survey.
JOHNSON, THEO. H.,	1115 S street.
JOHNSON, WILLARD D.,	U. S. Geological Survey.
JOHNSTON, A. D.,	1332 V street.
JOHNSTON, MISS E. B.,	1320 Florida avenue.
JOHNSTON, W. W., M. D.,	1603 K street.
JONES, EDWARD S., M. D.,	1505 R street.
JUDD, JOHN G.,*	420 Eleventh street.
KASSON, HONORABLE JOHN A.,	1726 I street.
KAUFFMANN, S. H.,	1421 Massachusetts avenue.
KEANE, BISHOP J. J.,	Catholic University.
KEITH, ARTHUR,	U. S. Geological Survey.
KELLEY, MISS FANNIE L.,	1620 Seventeenth street.
KELLY, MISS M. G.,	715 East Capitol street.
KENNAN, GEORGE,	Care of J. B. Pond, Everett House, New York, N. Y.
KENNEDY, GEORGE G., M. D.,	284 Warren street, Roxbury, Mass.

* Died July 23, 1895.

Active Members.

liii

KENNON, LIEUTENANT L. W. V., U. S. Army,	1429 New York avenue.
KENT, MISS PRISCILLA,	1311 Connecticut avenue.
KEYSER, MISS A. K.,	2019 Massachusetts avenue.
KIMBALL, E. F.,	1316 Rhode Island avenue.
KIMBALL, HONORABLE S. I.,	Life Saving Service, Treasury Department.
KING, MISS ANNA S.,	1315 Twelfth street.
KING, PROFESSOR F. H.,	1500 University avenue, Madison, Wis.
KING, GEORGE A.,	1420 New York avenue.
KING, MISS METELLA,	721 Irving street.
KING, R. A.,	1430 Corcoran street.
KING, WILLIAM B.,	1328 Twelfth street.
KIU, SURH BEUNG,	Korean Legation, Iowa circle.
KLAKRING, ALFRED,	Hydrographic office, Navy Department.
KNAPP, HONORABLE M. A.,	Sun building.
KNOWLTON, PROFESSOR F. H.,	National Museum.
KÜBEL, EDWARD,	326 First street N. E.
KÜBEL, S. J.,	U. S. Geological Survey.
KUMMELL, CHARLES H.,	U. S. Coast and Geodetic Survey.
KURINO, SHINICHIRO, E. E. and M. P.,	Japanese Legation, 1310 N street.
LADD, GEORGE E.,	— — —
LANDER, MRS J. M. D.,	45 B street S. E.
LANGLEY, DR S. P.,	Smithsonian Institution.
LAWRENCE, ROBERT M., M. D.,	1525 Eighteenth street.
LAWRENCE, MISS MARGARET,	1515 Corcoran street.

LEDYARD, L. W.,	Cazenovia, N. Y.
LEE, REVEREND THOMAS S.,	St Matthew's rectory, 1415 H street.
LEITER, L. Z.,	Dupont circle.
LENMAN, MISS I. H.,	1100 Twelfth street.
LEVERING, THOMAS H.,	1435 Chapin street.
LINDENKOHL, A.,	U. S. Coast and Geodetic Survey.
LINDENKOHL, H.,	U. S. Coast and Geodetic Survey.
LITTLEHALES, G. W.,	Hydrographic Office, Navy Department.
LJUNGSTEDT, O. A.,	U. S. Geological Survey.
LONG, CAPTAIN OSCAR F., U. S. Army,	War Department.
LOOKER, HENRY B., C. E.,	Surveyor's office.
LOOMIS, MISS A. E.,	Fernandina, Fla.
LOOMIS, DR LAFAYETTE C.,	Winthrop heights.
LORD, EDWIN C. E., M. D.,	2024 G street.
LORD, CAPTAIN THOMAS W., U. S. Army,	608 Twelfth street.
LORENZ, FRED. A.,	Central School Supply House, Chicago, Ill.
LOURY, MISS H. S.,	1309 F street.
LOVELL, W. H.,	U. S. Geological Survey.
LOWE, CHIEF ENGINEER JOHN, U. S. Navy,	203 East Capitol street.
LUDINGTON, COLONEL M. I., U. S. Army,	Army building, Chicago, Ill.
LYMAN, HONORABLE CHARLES,	1243 New Jersey avenue.
LYNCH, JOHN A.,	205 A street S. E.
MACFARLAND, JOSEPH,	1727 F street.
MACK, MISS NELLIE M.,	624 A street S. E.

Active Members.

lv

MACKAY-SMITH, REVEREND DR ALEX.,	1325 Sixteenth street.
MAGRUDER, JOHN H.,	1644 Twenty-first street.
MAHON, MRS M. H. B.,	1329 Corcoran street.
MAIER, JOHN G.,	415 I street S. E.
MALLETT, MISS ANNA S.,	1454 Rhode Island avenue.
MANDERSON, HONORABLE CHARLES F.,	Omaha, Neb.
MANN, H. L., M. D.,	334 Indiana avenue.
MANN, MISS MARY E.,	437 Seventh street.
MANNING, VAN H.,	U. S. Geological Survey.
MAREAN, M.,	1900 Lincoln avenue N. E.
MARINDIN, HENRY L.,	U. S. Coast and Geodetic Survey.
MARSH, LIEUTENANT C. C., U. S. Navy,	U. S. F. S. <i>New York</i> .
MARSHALL, R. B.,	U. S. Geological Survey.
MARTIN, ARTEMAS,	1534 Columbia street.
MARTIN, MISS FRANCES,	1850 Wyoming avenue.
MARTIN, R. H.,	Columbian University.
MARVINE, MRS A. R.,	1323 N street.
MATSUI, K., SECRETARY,	Japanese Legation, 1310 N street.
MATTHEWS, COMMODORE E. O., U. S. Navy,	1761 Q street.
MATTHEWS, SURGEON WASHINGTON, U. S. Army,	1262 New Hampshire avenue.
MATTINGLY, WILLIAM F.,	435 Seventh street.
MAURY, JUDGE WM. A.,	1767 Massachusetts avenue.
MAXCY, F. E., M. D.,	18 Iowa circle.
MAYNARD, GEORGE C.,	1407 Fifteenth street.

MAYNARD, COMMANDER W., U. S. Navy,	Navy Department.
MCADIE, ALEXANDER,	U. S. Weather Bureau, San Francisco, Cal.
MCALLISTER, C. A.,	Treasury Department.
MCCARTY, MRS O. V.,	1324 S street,
MCCENEY, MISS MARY E.,	The Shoreham.
MCCORMICK, L. M.,	Glen Island, N. Y.
MCCULLOCH, MISS MARY,	P. O. box 646.
MCCULLOUGH, MRS L. V.,	820 Twelfth street N. E.
MCCURDY, ARTHUR W.,	Baddeck, C. B.
MCGEE, W J,	Bureau of Ethnology.
MCGILL, MISS M. C.,	1447 Q street.
MCGRATH, JOHN E.,	— —.
MCGUIRE, F. B.,	1333 Connecticut avenue.
McKEE, REDICK H.,	U. S. Geological Survey.
McLANAHAN, G. W.,	1601 Twenty-first street.
McLAUGHLIN, T. N., M. D.,	1226 N street.
McNEIL, EATON K., M. D.,	930 K street.
McPHERSON, MRS MARY E.,	1227 I street.
MEADE, ADMIRAL R. W., U. S. Navy,	220 Winona avenue, Germantown, Pa.
MEARNS, CAPTAIN E. A., U. S. Army,	Fort Myer, Va.
MELOY, WM. A.,	118 C street.
MELVILLE, ENGINEER-IN-CHIEF G. W., U. S. Navy,	Navy Department.
DE MENDONÇA, SENHOR M. D. F.,	Brazilian Legation, 1800 N street.
DE MENDONÇA, SENHOR SALVADOR, E. E. and M. P.,	Brazilian Legation, 1800 N street.

Active Members.

lvii

MENOCAL, CIVIL ENGINEER A. G., U. S. Navy,	Norfolk Navy Yard, Va.
MERRIAM, DR C. HART,	Agricultural Department.
MERTWAGO, CAPTAIN D. T., Imperial Russian Navy,	1725 H street.
MESTON, R. D.,	1227 L street.
METZEROTT, F. B.,	1110 F street.
MICHLER, PAYMASTER A. K., U. S. Navy,	Navy Department.
MIDDLETON, JEFFERSON,	U. S. Geological Survey.
MILLER, E. H.,	1109 M street.
MILLS, COLONEL ANSON, U. S. Army,	2 Dupont circle.
MILMORE, MRS MARY L.,	1713 Corcoran street.
MINER, LIEUTENANT R. H., U. S. Navy,	Navy Yard, Mare Island, Cal.
MITCHELL, PROFESSOR HENRY,	54 Burroughs street, Jamaica Plain, Mass.
MIYOAKA, CAPTAIN N., Imperial Japanese Navy,	Japanese Legation, 1310 N street.
MONTAGUE, PROFESSOR A. P.,	Columbian University.
MOORE, F. L.,	1680 Thirty-first street.
MOORE, MRS M. R.,	P. O. box 505.
MOQUÉ, J. OLIVER,	1009 Thirteenth street.
MORGAN, GENERAL M. R., U. S. Army,	1633 Massachusetts avenue.
MORRISON, J. R. D.,	1326 F street.
MORRISON, W. C.,	1415 Rhode Island avenue.
MOSMAN, A. T.,	U. S. Coast and Geodetic Survey.
MUIR, PROFESSOR JOHN,	Martinez, Cal.
MULLER, FRANK C.,	Agricultural Department.
MUNCASTER, M., M. D.,	1510 H street

MURCH, B. W.,	Force school.
MURLIN, A. E.,	U. S. Geological Survey.
MURPHY, REVEREND JOS. W.,	927 M street.
MURPHY, CAPTAIN P. ST. CLAIR, U. S. M. C.,	U. S. Marine Barracks.
MURRAY, B. P.,	10 Third street N. E.
MYTINGER, MISS CAROLINE,	1214 O street.
NASSAU, WM. B.,	204 Arthur place.
NEEDHAM, JUDGE CHARLES W.,	1730 Sixteenth street.
NELSON, COMMANDER THOMAS, U. S. Navy,	Navy Yard, Portsmouth, N. H.
NEWBOLD, CAPTAIN CHARLES,	1025 Vermont avenue.
NEWCOMB, PROFESSOR SIMON, U. S. Navy,	1620 P street.
NEWELL, F. H.,	U. S. Geological Survey.
NILES, PROFESSOR WILLIAM H.,	Massachusetts Institute of Technology, Boston, Mass.
NORIGHIAN, M., EFFENDI,	Turkish Legation, 1631 Q street.
NOYES, CROSBY S.,	Editor Evening Star.
NOYES, THEODORE W.,	Office of The Evening Star.
OAKES, GENERAL JAMES, U. S. Army,	The Portland.
OGDEN, HERBERT G.,	U. S. Coast and Geodetic Survey.
OLBERG, CHARLES R.,	810 H street.
O'LEARY, T. S.,	Hydrographic office, Navy Department.
OLIVER, MRS M. E.,	922 Nineteenth street.
OLNEY, CHARLES F.,	137 Jennings avenue, Cleveland, O.
OWEN, F. D.,	1423 New York avenue.
OWEN, COLONEL WM. H.,	2213 Washington circle.

Active Members.

lix

PAINTER, MRS U. H.,	900 Fourteenth street.
PALMER, T. S.,	Agricultural Department.
PANCOAST, MISS M. E.,	1597 Corcoran street.
PARKE, GENERAL JOHN G., U. S. Army,	16 Lafayette square.
PARKER, E. W.,	U. S. Geological Survey.
PARKER, MEDICAL INSPECTOR J. B., U. S. Navy,	Navy Yard, Portsmouth, N. H.
PARKER, MISS L. M.,	1621 Seventeenth street.
PARKER, MYRON M.,	1020 Vermont avenue.
PARKER, MAJOR RICHARD C., U. S. Army,	Soldiers' Home.
PARMENTER, ENSIGN H. E., U. S. Navy,	1710 G street.
PARSONS, F. H.,	210 First street S. E.
PARSONS, MISS K.,	1529 O street.
PATTEN, JOHN D.,	3033 P street.
PATTERSON, MRS A. M.,	20 Iowa circle.
PATTERSON, H. J.,	Maryland Agricultural Experiment Station, College Park, Md.
PATTERSON, MISS M. A.,	937 New York avenue.
PATTERSON, MISS M. E.,	1100 Vermont avenue.
PAUL, HENRY M.,	Naval Observatory.
PAWLING, JESSE, JUNIOR,	Johns Hopkins University, Baltimore, Md.
PAYNE, JAMES G.,	2112 Massachusetts avenue.
PEABODY, W. F.,	U. S. Coast and Geodetic Survey.
PEARY, CIVIL ENGINEER R. E., U. S. Navy,	2014 Twelfth street.
PEELLE, JUDGE STANTON J.,	The Concora.
PELLEW, HENRY E.,	1637 Massachusetts avenue.

PENROSE, R. A. F., JUNIOR, M. D.,	1331 Spruce street, Philadelphia, Pa.
PERKINS, E. T., JUNIOR,	U. S. Geological Survey.
PERKINS, HONORABLE G. C.,	U. S. Senate.
PERRY, R. ROSS,	1309 P street.
PERRY, SEATON,	1713 Rhode Island avenue.
PETERS, EUGENE,	458 Pennsylvania avenue.
PETERS, LIEUTENANT G. H., U. S. Navy,	U. S. S. <i>Minneapolis</i> .
PETERS, WILLIAM J.,	U. S. Geological Survey.
PHILLIPS, R. H.,	1422 New York avenue.
PHILLIPS, HONORABLE T. W.,	1122 Vermont avenue.
PICKERING, PROFESSOR E. C.,	Harvard Observatory, Cambridge, Mass.
PICKING, CAPTAIN HENRY F., U. S. Navy,	Navy Department.
PIERCE, JOSIAH, JUNIOR,	1325 Massachusetts avenue.
PILLING, J. W.,	1301 Massachusetts avenue.
PLATT, HONORABLE O. H.,	U. S. Senate.
PLEASANTON, GENERAL A., U. S. Army,	1301 F street.
POLLOK, ANTHONY,	620 F street.
POND, MRS E. J.,	420 C street S. E.
POOLE, MAJOR DE W. C., U. S. Army,	2030 P street
PORTER, MINOTT E.,	Hydrographic Office, Navy Department.
POWELL, MAJOR C. F., U. S. Army,	District building.
POWELL, MRS DIANA KEARNEY,	1734 K street.
POWELL, MAJOR J. W.,	910 M street.
POWELL, PROFESSOR W. B.,	Franklin school.

Active Members.

lxi

POWERS, MISS LYDIA M.,	1439 Chapin street.
PRANG, LOUIS,	646 Washington street, Boston, Mass.
PRATT, J. F.,	U. S. Coast and Geodetic Survey.
PRENTISS, D. W., M. D.,	1101 Fourteenth street.
PROCTER, HONORABLE JOHN R.,	Civil Service Commission.
PUTNAM, GEORGE R.,	U. S. Coast and Geodetic Survey.
PYLE, FRED. B.,	Washington Loan and Trust building.
PYLE, WALTER L., M. D.,	The Albany.
RABER, MISS KATHERINE,	1914 Third street.
RAND, CHARLES F., M. D.,	1228 Fifteenth street.
RAND, PAYMASTER STEPHEN, U. S. Navy,	Navy Yard.
RANKIN, PRESIDENT J. E.,	Howard University.
RANKIN, JOHN M.,	Atlantic building.
RAYMOND, EDWARD S.,	Washington Loan and Trust building.
REED, LIEUTENANT B. L., U. S. Revenue Marine,	Life Saving Service, Treasury Department.
REED, MISS TEMPERANCE P.,	1616 Rhode Island avenue.
REESE, MISS ELLA,	Brookland, D. C.
REILLY, PHILIP K.,	2321 Pennsylvania avenue.
REVENTLOW, COUNT F., E. E. and M. P.,	1409 Twentieth street.
REYBURN, ROBERT, M. D.,	714 Thirteenth street.
REYNOLDS, GENERAL J. J., U. S. Army,	1601 S street.
RICHARDSON, C. W., M. D.,	1102 L street.
RICHARDSON, F. A.,	1308 Vermont avenue.
RICHARDSON, J. J., M. D.,	1017 Fourteenth street.

RICHMOND, CHARLES W.,	1307 T street.
RICHTER, MISS CLARA M.,	330 A street S. E.
RICKETTS, W. W.,	Civil Service Commission.
RILEY, OWEN,	Post Office Department.
RITTENHOUSE, MAJOR B. F., U. S. Army,	1705 M street.
RITTER, HOMER P.,	U. S. Coast and Geodetic Survey.
RIZER, COLONEL H. C.,	U. S. Geological Survey.
ROBERTS, A. C.,	Hydrographic Office, Navy Department.
ROBERTS, W. F.,	1421 G street.
ROBERTSON, MRS GAY,	1123 Seventeenth street.
ROBINSON, HONORABLE H. A.,	Agricultural Department.
ROCHESTER, GENERAL W. B., U. S. Army,	1320 Eighteenth street.
ROCK, MILES, C. E.,	1447 Staughton street.
ROCKHILL, HONORABLE W. W.,	Department of State.
ROMERO, SEÑOR DON M., E. E. and M. P.,	1413 I street.
ROOME, MISS LILLIAN K.,	1345 Princeton street.
ROSS, HONORABLE JOHN W.,	The Varnum.
ROTCH, A. LAWRENCE,	Readville, Mass.
RUSSELL, CAPTAIN A. H., U. S. Army,	U. S. Arsenal, Rock Island, Ill.
RUSSELL, E. E.,	904 S street.
SANDERS, HENRY P.,	1504 Twenty-first street.
SANDS, MISS MARIE,	1222 Connecticut avenue.
SANGER, MAJOR J. P., U. S. Army,	War Department.
SARGENT, PROFESSOR C. S.,	Arnold Arboretum, Jamaica Plain, Mass.

Active Members.

lxiii

SAWYER, MRS C. B.,	Globe House.
SAWYER, MRS N. C.,	Brattleboro, Vt.
SCAIFE, WALTER B.,	143 North avenue, Allegheny, Pa.
SCHLEY, CAPTAIN W. S., U. S. Navy,	Commanding U. S. F. S. <i>New York</i> .
SCHMIDT, FERDINAND,	1337 Wallach place.
SCHMIDT, FRED A.,	504 Ninth street.
SCHOEFF, W. KESLEY, C. E.,	Eckington, D. C.
SCHOULER, COMMANDER JOHN, U. S. Navy,	U. S. F. S. <i>New York</i> .
DE SCHWEINITZ, DR. E. A.,	Agricultural Department.
SCIDMORE, MISS ELIZA RUHAMA,	The Shoreham.
SCOTT, MISS FANNIE T.,	2017 O street.
SCOTT, S. MATHEWSON,	488 St Nicholas avenue, New York.
SCOTT, W. O. N.,	1711 Connecticut avenue.
SEAMAN, PROFESSOR WILLIAM H.,	1424 Eleventh street.
SEAVEY, MISS J. M.,	Internal Revenue Office, Treasury Department.
SEDGLEY, MISS ISABEL,	1779 Massachusetts avenue.
SHALER, PROFESSOR N. S.,	25 Quincy street, Cambridge, Mass.
SHATTUCK, GEORGE B.,	Johns Hopkins University, Baltimore, Md.
SHAW, GEORGE CLYMER,	511 C street S. E.
SHAW, JOHN W., M. D.,	908 Fifteenth street.
SHEDD, MRS S. S.,	Takoma Park, D. C.
SHERMAN, HONORABLE JOHN,	U. S. Senate.
SHIDY, LELAND P.,	U. S. Coast and Geodetic Survey.
SHIR-CLIFF, WILLIAM H.,	56 R street N. E.

- SHOCK, CHIEF ENGINEER W. H., U. S. Navy,
1404 Fifteenth street.
- SHOEMAKER, CAPTAIN C. F., U. S. Revenue Marine,
Treasury Department.
- SIDWELL, THOMAS W.,
1811 I street.
- SIGSBEE, COMMANDER CHARLES D., U. S. Navy,
Hydrographic Office, Navy Department.
- SINCLAIR, C. H.,
U. S. Coast and Geodetic Survey, El Paso, Tex.
- SINCLAIR, J. C.,
718 Arch street, Philadelphia, Pa.
- SITES, C. M. LACEY,
1315 Clifton street.
- SMALL, J. H., JR.,
Fourteenth and G streets.
- SMITH, GENERAL C. H., U. S. Army,
1728 Q street.
- SMITH, MRS E. L.,
232 Third street.
- SMITH, GEORGE LAMBERT,
1209 K street.
- SMITH, LINCOLN A.,
1631 Massachusetts avenue.
- SMITH, MIDDLETON,
1616 Nineteenth street.
- SMITH, GENERAL WILLIAM, U. S. Army,
1606 K street.
- SOMERS, MRS E. J.,
1100 M street.
- SOMMER, E. J.,
U. S. Coast and Geodetic Survey.
- SOTHORON, JAMES T., M. D.,
1917 I street.
- SOUTHERLAND, LIEUTENANT W. H. H., U. S. Navy,
1923 N street.
- SPEAR, GENERAL ELLIS,
1003 F street.
- SPENCER, MISS MARY A.,
336 Second street N. E.
- SPOFFORD, A. R.,
Library of Congress.
- SPRING-RICE, CECIL A.,
British Embassy.
- SQUIRE, HONORABLE WATSON C.,
U. S. Senate.
- STANLEY-BROWN, JOSEPH,
1318 Massachusetts avenue.

Active Members.

lxv

STAPLES, W. R.,	General Land Office.
STAVELY, ALBERT L., M. D.,	Garfield Hospital.
STEAD, ROBERT,	1230 Seventeenth street.
STEEVER, CAPTAIN E. Z., U. S. Army,	1429 New York avenue.
STEIGER, GEORGE,	U. S. Geological Survey.
STEIN, ROBERT,	U. S. Geological Survey.
STELLWAGEN, EDWARD J.,	1214 F street.
STERNBERG, SURGEON GENERAL GEORGE M., U. S. Army,	War Department.
STERRETT, DR J. MACBRIDE,	Columbian University.
STEVENS, HONORABLE D. W.,	Japanese Legation.
STEVENS, F. C.,	1415 G street.
STEVENS, HONORABLE M. T.,	North Andover, Mass.
STEVENSON, HONORABLE A. E.,	The Normandie.
STEVENSON, MRS M. C.,	1510 H street.
STOKES, DR H. N.,	U. S. Geological Survey.
STONE, LIEUTENANT C. A., U. S. Navy,	1821 M street.
STONE, I. S., M. D.,	1449 Rhode Island avenue.
STONER, MISS LILLIAN,	1918 I street.
STRATTON, J. A.,	Civil Service Commission.
STRIDER, MRS L. C.,	1450 Rhode Island avenue.
STRONG, MR JUSTICE W.,*	1411 H street.
STUDDS, COLIN,	Baltimore and Potomac depot.
STURTEVANT, MRS A. L.,	Howard avenue, Mt Pleasant.

* Died August 19, 1895.

SUMMERS, MILO C.,	War Department.
SUTTON, FRANK,	U. S. Geological Survey.
SWANN, MRS THOMAS,	1415 I street.
SWARTZELL, G. W. F.,	916 F street.
SWEAT, L. D. M.,	The Normandie.
TAINTER, CHARLES S.,	1360 E street.
TANNER, COMMANDER Z. L., U. S. Navy,	U. S. Fish Commission.
TARBELL, MISS ADA M.,	919 I street.
TAYLOR, DANIEL F.,	918 F street.
TAYLOR, H. W.,	100 Fifth street N. E.
THAYER, JUDGE RUFUS H.,	930 F street.
THOM, WM. TAYLOR,	1100 M street.
THOMAS, LIEUTENANT CHAUNCEY, U. S. Navy,	Hydrographic Office, Navy Department.
THOMAS, FRANCIS, M. D.,	Ednor, Montgomery county, Md.
THOMAS, MISS M. VON E.,	1309 N street.
THOMAS, MRS R. R. D.,	206 S street N. E.
THOMPSON, PROFESSOR A. H.,	U. S. Geological Survey.
THOMPSON, MAJOR GILBERT,	U. S. Geological Survey.
THOMPSON, J. B.,	1756 Corcoran street.
THOMPSON, JOHN W.,	National Metropolitan Bank.
THOMPSON, MISS M. IDA,	1419 I street.
THURSTON, HONORABLE L. A.,	Honolulu, Hawaiian Islands.
TILTON, LIEUTENANT PALMER, U. S. Army,	1643 Thirteenth street.
TILTON, R. N.,	220 Second street N. E.

Active Members.

lxvii

TISDEL, WILLARD P.,	1323 Thirteenth street.
TORBERT, J. B.,	420 Ninth street.
TOWNSEND, MRS J. C.,	1433 Staughton street.
TRUESDELL, HONORABLE GEORGE,	District building.
TURNER, H. W.,	U. S. Geological Survey.
TWEEDALE, JOHN,	War Department.
TWEEDY, FRANK,	U. S. Geological Survey.
UPTON, LIEUTENANT FRED E., U. S. Navy,	Bureau of Education.
URQUHART, CHARLES F.,	U. S. Geological Survey.
VAN DYKE, W. M.,	1111 N street.
VAN HISE, PROFESSOR C. R.,	University of Wisconsin, Madison, Wis.
VAN HOOK, MISS ANTOINETTE,	1616 Nineteenth street.
VASEY, MRS GEORGE,	1307 Riggs street.
VAUGHAN, T. WAYLAND,	U. S. Geological Survey.
VILAS, HONORABLE WILLIAM F.,	The Arno.
VINAL, W. IRVING,	1106 East Capitol street.
VINCENT, GENERAL T. M., U. S. Army,	War Department.
WADDEY, JOHN A.,	Hydrographic Office, Navy Department.
WAGNER, F. H.,	Civil Service Commission.
WAINWRIGHT, DALLAS B.,	1409 Chapin street.
WAITE, MISS MARY F.,	1616 Rhode Island avenue.
WALCOTT, CHARLES D.,	U. S. Geological Survey.
WALES, GEORGE R.,	Civil Service Commission.
WALKER, ALBERT M.,	1000 New Hampshire avenue.

WALKER, ADMIRAL J. G., U. S. Navy,	1202 Eighteenth street.
WALKER, HONORABLE J. H.,	The Shoreham.
WALL, COLONEL WILLIAM,	St Cloud Hotel, New York, N. Y.
WALLACE, MRS E. E.,	739 East Capitol street.
WALLACE, MRS E. R.,	1321 Massachusetts avenue.
WALLACE, WILLIAM J.,	1107 E street.
WALTON, MISS FLORENCE,	106 Fourth street S. E.
WANAMAKER, FRED,	Civil Service Commission.
WANAMAKER, HONORABLE JOHN,	Philadelphia, Pa.
WARD, MISS ELIZA T.,	5 Grant place.
WARD, MRS FAN ^{NIE} B.,	1537 Eighth street.
WARD, H. P.,	The Hamilton.
WARD, ROBERT DE C.,	Harvard University, Cambridge, Mass.
WARDER, MRS R. B.,	Howard University.
WARMAN, P. C.,	U. S. Geological Survey.
WARNER, B. H.,	2100 Massachusetts avenue.
WARREN, MISS M. B.,	19 Second street, Troy, N. Y.
WASHBURN, W. S.,	Civil Service Commission.
WASHINGTON, COLONEL L. Q.,	1105 Ninth street.
WATKINS, J. ELFRETH,	Care of Secretary National Geographic Society, 1515 H street.
WEBB, H. RANDALL,	727 Nineteenth street.
WEBB, W. H.,	415 Fifth avenue, New York, N. Y.
WEBSTER, MAJOR WILLIAM H.,	Civil Service Commission.
WEIR, JOHN .B.,	The Clarendon.

Active Members.

Ixix

- WELD, GEORGE F.,
Albemarle and Chesapeake Canal Company, Norfolk, Va
- WELKER, P. A.,
U. S. Coast and Geodetic Survey, 2348 Lawrence avenue, Toledo, O.
- WELLMAN, WALTER,
1336 Massachusetts avenue.
- WELLS, E. HAZARD,
Office of The Cincinnati Post, Cincinnati, O.
- WEST, CAPTAIN F., U. S. Army,
Fort Myer, Va.
- WESTCOTT, MISS EDITH C.,
1339 L street.
- WHITE, MEDICAL INSPECTOR C. H., U. S. Navy,
Naval Laboratory, Brooklyn, N. Y.
- WHITE, DAVID,
143 North Carolina avenue.
- WHITE, MISS ELIZABETH WALKER,
Lawrence, Mass.
- WHITE, GEORGE H. B.,
National Metropolitan Bank.
- WHITE, PROFESSOR I. C.,
Morgantown, W. Va.
- WHITNEY, JOSEPH N.,
1403 H street.
- WHITTEMORE, W. C.,
1526 New Hampshire avenue.
- WHITTLESEY, GEORGE P.,
1430 Staughton street.
- WIGHT, E. B.,
1333 F street.
- WIGHT, JOHN B.,
1410 G street.
- WIGHT, LLOYD B.,
25 Grant place.
- WILBUR, MISS F. ISABEL,
1719 Fifteenth street.
- WILDE, COMMANDER G. F. F., U. S. Navy,
Light-house Board, Treasury Department.
- WILDER, GENERAL J. T.,
Johnson City, Tenn.
- WILKES, MISS JANE,
814 Connecticut avenue.
- WILKINS, HONORABLE BERIAH,
Editor Washington Post.
- WILKINSON, A. G., M. D.,
1526 K street.
- WILLENBÜCHER, WILLIAM C.,
428 New Jersey avenue S. E.

WILLIAMS, CHARLES A.,	1301 Eighteenth street.
WILLIAMS, MAJOR J. M., U. S. Army,	1842 Thirteenth street.
WILLIAMS, MAJOR L. P.,	P. O. box 227.
WILLIAMSON, MISS HAIDEE,	1805 Nineteenth street.
WILLIS, BAILEY,	U. S. Geological Survey.
WILLIS, F. I.,	War Department.
WILLITS, HONORABLE EDWIN,	Washington Loan and Trust building.
WILSON, MISS ALISAN,	The Bancroft.
WILSON, MAJOR C. I., U. S. Army,	War Department.
WILSON, H. M.,	U. S. Geological Survey.
WILSON, COLONEL J. M., U. S. Army,	War Department.
WILSON, JOSEPH F.,	1315 Clifton street.
WILSON, MISS LIZZIE,	1116 Fifteenth street.
WILSON, DR THOMAS,	1218 Connecticut avenue
WINSLOW, PROFESSOR ARTHUR,	Roe building, Fifth and Pine streets, St Louis, Mo.
WINSTON, ISAAC,	1325 Corcoran street.
WINTER, JOHN T., M. D.,	1528 Ninth street.
WINTERHALTER, LIEUTENANT A. G., U. S. Navy,	U. S. S. <i>Bennington</i> .
WISE, CAPTAIN W. C., U. S. Navy,	1014 Seventeenth street.
WITMER, A. H., M. D.,	Government Hospital for the Insane.
WOOD, LIEUTENANT A. N., U. S. Navy,	Navy Department.
WOODWARD, S. W.,	Wyoming avenue.
WOODWORTH, MILTON,	1424 S street.
WOOLWORTH, JAMES,	Sandusky, Ohio.

Active Members.

lxxi

WOOSTER, W. M., M. D.,

1228 Fourteenth street.

WORTHINGTON, A. S.,

2015 Massachusetts avenue.

WRIGHT, JOHN J.,

1525 O street.

WRIGHT, MOSES H.,

53 Trowbridge street, Cambridge, Mass.

WRIGHT, MRS S. B.,

1525 O street.

WYMAN, WALTER, M. D.,

Marine Hospital.

YOUNG, F. A.,

U. S. Coast and Geodetic Survey.

YOUNG, JOHN R.,

1314 B street S. W.

YRIGOYEN, DR DON J. M.,

Peruvian Legation.

CORRESPONDING MEMBERS

ABBE, CLEVELAND, JUNIOR,	2017 I street.
ADAMS, PROFESSOR FRANK D.,	McGill University, Montreal, Canada.
ADAMS, F. G.,	Kansas Historical Society, Topeka, Kan.
AHERN, LIEUTENANT GEORGE P., U. S. Army,	Fort Missoula, Mont.
ANDERSON, SURGEON FRANK, U. S. Navy,	U. S. S. <i>Amphitrite</i> .
ANDERSON, MARY L.,	P. O. box 977, Salt Lake City, Utah.
ANDREWS, C. L.,	P. O. box 106, Fremont, Wash.
ATKINS, THOMAS B.,	Maritime Canal Company, 54 Broad street, New York, N. Y.
AUSTIN, PROFESSOR E. P.,	100 South Eighth West street, Salt Lake City, Utah.
AYERS, H. B.,	Carlton, Minn.
BABB, CYRUS K.,	12 Somerset street, Boston, Mass.
BABER, MISS ZONIA,	6757 Lafayette avenue, Englewood, Ill.
BADLEY, MRS MARY S.,	Windsor, Mo.
BAGG, R. M., JUNIOR,	Johns Hopkins University, Baltimore, Md.
BAKER, DAVID,	Sparrow Point, Md.
BAKER, LUCIUS,	P. O. drawer 2596, Fresno, Cal.
BANCROFT, DR C. F. P.,	Phillips Academy, Andover, Mass.
BANNISTER, CHARLES K.,	Ogden, Utah.
BARNARD, CHARLES,	Ventura, Cal.
BARROLL, LIEUTENANT H. H., U. S. Navy,	Homestead Steel Works, Munhall, Pa.
BARTON, GEORGE H.,	Massachusetts Institute of Technology, Boston, Mass.
BASCOM, DR FLORENCE,	Ohio State University, Columbus, Ohio.

Corresponding Members.

lxxiii

- BATCHELDER, C. F., M. D.,
7 Kirkland street, Cambridge, Mass.
- BAYLEY, DR W. S.,
Colby University, Waterville, Me.
- BAYLIS, JEROME Z.,
Case School of Applied Science, Cleveland, Ohio.
- BEARDSLEE, ADMIRAL L. A., U. S. Navy,
Commanding U. S. Naval Force, Pacific Station.
- BERNADOU, LIEUTENANT J. B., U. S. Navy,
Torpedo Station, Newport, R. I.
- BERTHOUD, EDWARD L.,
P. O. box 45, Golden, Colo.
- BIXBY, MAJOR W. H., U. S. Army,
Post Office building, Philadelphia, Pa.
- BOWER, R. A.,
166 Adams street, Chicago, Ill.
- BRIGHAM, PROFESSOR A. P.,
Colgate University, Hamilton, N. Y.
- BROADHEAD, PROFESSOR G. C.,
Columbia, Mo.
- BROWN, WILL Q.,
Riddles, Ore.
- BULKLEY, FRED G.,
Aspen, Colo.
- BURR, J. H. TEN EYCK,
Cazenovia, N. Y.
- CANTWELL, LIEUTENANT J. C., U. S. Revenue Marine,
1818 Sacramento street, San Francisco, Cal.
- CARLETON, P. J.,
Rockport, Me.
- CARROLL, CAPTAIN JAMES,
Juneau, Alaska.
- CARY, AUSTIN,
Agricultural Department.
- CHAMBERLIN, PROFESSOR T. C.,
University of Chicago, Chicago, Ill.
- CHENERY, LIEUTENANT COMMANDER L., U. S. Navy,
University Club, New York, N. Y.
- CHESTER, COMMANDER C. M., U. S. Navy,
Navy Yard, Brooklyn, N. Y.
- CLAPP, GEORGE H.,
116 Water street, Pittsburg, Pa.
- CLARK, DR W. B.,
Johns Hopkins University, Baltimore, Md.
- CLAYPOLE, PROFESSOR E. W.,
Buchtel College, Akron, Ohio.
- CLENDENIN, PROFESSOR W. W.,
Louisiana State Experiment Station, Baton Rouge, La.

COLLIE, PROFESSOR G. L.,	Beloit College, Beloit, Wis.
COMSTOCK, PROFESSOR T. B.,	University of Arizona, Tucson, Ariz.
CONGER, CHARLES T.,	University of Chicago, Chicago, Ill.
CONLEY, MISS M. J.,	Ventura, Cal.
COOK, FREDERICK A., M. D.,	15 Hart street, Brooklyn, N. Y.
COOK, FRED W.,	415 Power building, Helena, Mont.
COOLEY, MISS GRACE E.,	Wellesley College, Wellesley, Mass.
CRAGIN, PROFESSOR F. W.,	Colorado College, Colorado Springs, Colo.
CRIMMINS, MARTIN L.,	University of Virginia, Charlottesville, Va.
CROTTER, A. L. E.,	"Mount Airy," Philadelphia, Pa.
CULBERTSON, EMMA B., M. D.,	33 Newbury street, Boston, Mass.
CULVER, PROFESSOR G. E.,	Stevens Point, Wis.
CUNNINGHAM, JOHN M.,	Cosmos Club, San Francisco, Cal.
CURTIS, G. CARROLL,	68 Thayer Hall, Cambridge, Mass.
DALY, REGINALD A.,	60 Perkins Hall, Cambridge, Mass.
DAVIDSON, PROFESSOR GEORGE,	San Francisco, Cal.
DAVIS, ARTHUR P.,	U. S. Geological Survey, P. O. box 788, Denver, Colo.
DAVIS, W. T.,	American Bank building, Kansas City, Mo.
DAVIS, WALTER W.,	515 Main street, Kansas City, Mo.
DEMING, MISS C. E.,	State Normal School, Providence, R. I.
DENNY, ARTHUR A.,	1328 Front street, Seattle, Wash.
DODGE, R. E.,	Teachers' College, 129th street west, New York, N. Y.
DOLLEY, CHARLES S., M. D.,	3707 Woodland avenue, Philadelphia, Pa.
DORR, R. E. APTHORP,	Mail and Express, 263 Broadway, New York, N. Y.

Corresponding Members.

LXXV

- DREWRY, W. S.,
Department of Land and Works, Victoria, British Columbia.
- DRYER, CHARLES R., M. D.,
Fort Wayne, Ind.
- DUMBLE, PROFESSOR E. T.,
State Geological Survey, Austin, Tex.
- EASTMAN, CHARLES R.,
297 Laurel avenue, Saint Paul, Minn.
- EDSON, HONORABLE OBED,
Sinclairville, N. Y.
- EMERSON, DR B. K.,
Amherst, Mass.
- EVANS, SAMUEL G.,
211 Main street, Evansville, Ind.
- EYERMAN, JOHN,
"Oakhurst," Easton, Pa.
- FAIRCHILD, PROFESSOR H. LE ROY,
University of Rochester, Rochester, N. Y.
- FAIRCHILD, JOHN F.,
Bank building, Mount Vernon, N. Y.
- FENNEMAN, N. M.,
State Normal School, Greeley, Colo.
- FORBES, W. H.,
233 Chestnut avenue, Jamaica Plain, Mass.
- FRANK, GEORGE W., JUNIOR,
Kearney, Neb.
- GANE, H. S.,
Johns Hopkins University, Baltimore, Md.
- GANONG, PROFESSOR W. F.,
119 Oxford street, Cambridge, Mass.
- GARDNER, JOHN L., 2d,
22 Congress street, Boston, Mass.
- GARRETT, H. G.,
Orlando, Fla.
- GOODE, J. PAUL,
Moorhead, Minn.
- GORMAN, M. W.,
75 North Fourteenth street, Portland, Ore.
- GOUCHER, DR J. F.,
Woman's College, Baltimore, Md.
- GRANT, ULYSSES S.,
State Geological Survey, Minneapolis, Minn.
- GREENE, ROGER S., JUNIOR,
Seattle, Wash.
- GREGORY, E. J.,
Fort Collins, Colo.
- GRIMSLEY, G. P.,
87 Hubbard avenue, Columbus, Ohio.

- GRINNELL, GEORGE B., M. D.,
318 Broadway, New York, N. Y.
- GRISWOLD, L. S.,
238 Boston street, Dorchester, Mass.
- GROEGER, G. G.,
310 Chamber of Commerce building, Chicago, Ill.
- GULLIVER, F. P.,
1686 Cambridge street, Cambridge, Mass.
- HAGADORN, LIEUTENANT C. B., U. S. Army,
Springfield, Mass.
- HARRIS, DR T. W.,
Harvard University, Cambridge, Mass.
- HARRISON, THOMAS F.,
221 West Forty-fifth street, New York, N. Y.
- HARVEY, F. H.,
Galt, Sacramento county, Cal.
- HASKELL, E. E.,
U. S. Engineer's office, Sault de Sainte Marie, Mich.
- HASTINGS, JOHN B.,
Boise, Idaho.
- HAWLEY, LIEUTENANT COMMANDER J. M., U. S. Navy,
U. S. S. *Detroit*.
- HAYDEN, JOHN ELLERTON VASSALL,
Milton, Mass.
- HAYES, PROFESSOR ELLEN,
Wellesley College, Wellesley, Mass.
- HAYNES, F. JAY,
392 Jackson street, Saint Paul, Minn.
- HENSHAW, H. W.,
Chico, Cal.
- HILL, HARRY C.,
P. O. box 1040, Salt Lake City, Utah.
- HILLS, VICTOR G.,
P. O. box D, Cripple Creek, Colo.
- HITCHCOCK, PROFESSOR C. H.,
Dartmouth College, Hanover, N. H.
- HOBBS, DR W. H.,
University of Wisconsin, Madison, Wis.
- HODGIN, CYRUS W.,
Earlham College, Richmond, Ind.
- HOLDEN, LUTHER L.,
9 Saint John street, Jamaica Plain, Mass.
- HOLMES, PROFESSOR J. A.,
University of North Carolina, Chapel Hill, N. C.
- HOOPER, CAPTAIN C. L., U. S. Revenue Marine,
320 East Sola street, Santa Barbara, Cal.
- HORE, CAPTAIN E. C.,
Care of Thomas Pratt, Bridge street, Sydney, N. S. W.

Corresponding Members.

lxxvii

HOWE, EDWARD G.,	304 Columbia avenue, Champaign, Ill.
HOWE, FRANK D.,	Care of Secretary National Geographic Society, 1515 H street.
HOWISON, CAPTAIN H. L., U. S. Navy,	Navy Yard, Mare Island, Cal.
HOXIE, CAPTAIN R. L., U. S. Army,	P. O. box 1240, Pittsburg, Pa.
HUBBARD, W. H.,	904 "The Rookery," Chicago, Ill.
HUBERICH, CHARLES H.,	P. O. box 640, San Antonio, Tex.
HURD, ARTHUR W., M. D.,	Buffalo State Hospital, Buffalo, N. Y.
IDDINGS, PROFESSOR J. P.,	University of Chicago, Chicago, Ill.
VAN INGEN, GILBERT,	Vassar College, Poughkeepsie, N. Y.
JACOBS, JOSEPH,	Los Angeles, Cal.
JAGGER, T. A., JUNIOR,	Care of Drexel Harjes et Cie, Paris, France.
JEWETT, W. P.,	180 East Third street, Saint Paul, Minn.
JOHNSON, MRS MARY D.,	Sitka, Alaska.
KELLEY, W. D.,	619 Havemeyer building, New York, N. Y.
KEMP, PROFESSOR J. F.,	Columbia College, New York, N. Y.
KEMP, JAMES S.,	395 Union street, Brooklyn, N. Y.
KENNAN, K. K.,	Manhattan, Mont.
KENNEDY, GILBERT F.,	19 Rutland street, Cambridge, Mass.
KERR, H. S.,	Manti, Utah.
KERR, MARK B.,	402 Front street, San Francisco, Cal.
KERR, W. H.,	Ilchester, Md.
KING, W. F.,	Department of the Interior, Ottawa, Canada.
KLOTZ, DR OTTO J.,	437 Albert street, Ottawa, Canada.
KOEHLER, S. R.,	Museum of Fine Arts, Back Bay P. O., Boston, Mass.

- KÜMMEL, HENRY B.,
University of Chicago, Chicago, Ill.
- LAMB, MISS LAVINIA,
579 Broadway, Saint Paul, Minn.
- LAMBERT, M. B.,
326 Clinton street, Brooklyn, N. Y.
- LEONARD, A. G.,
Iowa Geological Survey, Des Moines, Iowa.
- LEVERETT, FRANK,
Denmark, Iowa.
- LEWIS, JESSE,
Warrensburg, Mo.
- LEWIS, J. V.,
Chapel Hill, N. C.
- LIBBEY, PROFESSOR WILLIAM, JUNIOR,
20 Bayard avenue, Princeton, N. J.
- LIDDELL, HENRY, M. D.,
Care of Secretary National Geographic Society, 1515 H street.
- LLOYD, FRANCIS E.,
Pacific University, Forest Grove, Ore.
- LOOMIS, HENRY B.,
Seattle, Wash.
- LUCE, JOSEPH, E. M.,
29 South Sixth East street, Salt Lake City, Utah.
- MACFARLANE, PROFESSOR A.,
University of Texas, Austin, Texas.
- MACKAYE, JAMES M.,
Shirley, Mass.
- MACKINDER, H. J.,
1 Bradmore road, Oxford, England.
- MAHER, JAMES A.,
P. O. box 35, Johnson City, Tenn.
- MALONE, MISS M. J.,
Hyattsville, Md.
- MARBUT, CURTIS F.,
Care of Secretary National Geographic Society, 1515 H street.
- MARCY, PROFESSOR OLIVER,
703 Chicago avenue, Evanston, Ill.
- MARKS, A. J., M. D.,
419 Madison street, Toledo, Ohio.
- MASON, MRS A. LIVINGSTON,
"Halidon Hall," Newport, R. I.
- MCARTHUR, J. J.,
Topographical Survey, Ottawa, Canada.
- MCCRACKEN, R. H.,
P. O. box 495, San Antonio, Tex.
- MCCURDY, GEORGE G.,
Care Professor E. E. Salisbury, New Haven, Conn.

Corresponding Members.

lxxix

McDOWELL, WILLIAM O.,	Lincoln Park, Newark, N. J.
McLAUGHLIN, MAJOR FRANK,	Oroville, Cal.
MELL, PROFESSOR P. H.,	Auburn, Ala.
MENDENHALL, DR T. C.,	Polytechnic Institute, Worcester, Mass.
MERRILL, CHARLES A.,	Holden, Mass.
MERRILL, F. J. H.,	State Museum, Albany, N. Y.
MERRILL, PROFESSOR J. A.,	Warrensburg, Mo.
MILLER, CHARLES C.,	500 Ross street, Hamilton, Ohio.
MONJEAU, CLEOPHAS,	Middletown, Ohio.
MONTGOMERY, PROFESSOR J. H.,	Allegheny College, Meadville, Penn.
MORRIS, MISS L. W.,	617 Milan street, Shreveport, La.
NITZE, H. B. C.,	1505 Edmondson avenue, Baltimore, Md.
NIXON, J. H., M. D.,	314 Saint Louis street, Springfield, Mo.
NORDHOFF, CHARLES,	Coronado, Cal.
NORMAN-NERUDA, L.,	Devonshire Club, Saint James street, London, England.
O'BRIAN, J. T.,	Kearney, Neb.
OPPENHEIM, MRS ANSEL,	277 Summit avenue, Saint Paul, Minn.
OSBORN, LIEUTENANT A. P., U. S. Navy,	Commanding Coast Survey Steamer <i>Gedney</i> .
OSBORNE, DR GEORGE L.,	State Normal School, Warrensburg, Mo.
OTIS, HAMILTON,	Cazadero, Cal.
OWEN, W. O.,	Laramie, Wyo.
PARKER, COLONEL FRANCIS W.,	6640 Honore street, Englewood, Ill.
PARMELEE, H. P.,	Charlevoix, Mich.
PAVLOW, PROFESSOR ALEX. W.,	Sadowaja, Great Spassky Perlouak, Haus Lebedeff No 3, Moscow, Russia.

- PEALE, DR A. C.,
1909 Chestnut street, Philadelphia, Pa.
- PECKHAM, GRACE, M. D.,
The Madison, New York, N. Y.
- PETTY, PROFESSOR W. J.,
Bradford, Pa.
- PILLSBURY, LIEUTENANT COMMANDER J. E., U. S. Navy,
Naval War College, Newport, R. I.
- POORE, HOWARD W.,
Worcester Academy, Worcester, Mass.
- POWER, GEORGE C.,
P. O. box E, Ventura, Cal.
- POWERS, FRED PERCY,
32 Broadway, New York, N. Y.
- PRICE, JOSEPH M.,
56 West Seventy-first street, New York, N. Y.
- PRINCE, JOHN D., M. D.,
9 East Tenth street, New York, N. Y.
- PRINCE, HONORABLE L. BRADFORD,
Santa Fe, N. M.
- READ, MOTTE A.,
Laguna P. O., Tex.
- RECLUS, PROFESSOR ELISEE,
17 rue du Lac, Brussels, Belgium.
- REID, PROFESSOR HARRY FIELDING,
Johns Hopkins University, Baltimore, Md.
- REITER, COMMANDER G. C., U. S. Navy,
Light-house inspector, Philadelphia, Pa.
- RICE, PROFESSOR WILLIAM NORTH,
Wesleyan University, Middletown, Conn.
- RICHARDSON, T. J.,
734 East Fifteenth street, Minneapolis, Minn.
- RICKSECKER, EUGENE,
P. O. box 289, Seattle, Wash.
- RIORDAN, D. M.,
Flagstaff, Ariz.
- ROBBINS, ARTHUR G.,
Massachusetts Institute of Technology, Boston, Mass.
- ROBINSON, MISS F. PAGE,
Forest Glen, Md.
- ROCKWOOD, PROFESSOR C. G., JUNIOR,
34 Bayard avenue, Princeton, N. J.
- ROTHROCK, J. T., M. D.,
Westchester, Pa.
- RUSBY, H. H., M. D.,
222 West 132d street, New York, N. Y.
- RUSSEL, LIEUTENANT EDGAR, U. S. Army,
West Point, N. Y.

Corresponding Members.

lxxxi

- RUSSELL, PROFESSOR ISRAEL C.,
University of Michigan, Ann Arbor, Mich.
- SAFFORD, M. VICTOR, M. D.,
Kittery, Me.
- SALISBURY, PROFESSOR R. D.,
University of Chicago, Chicago, Ill.
- SASSEVILLE, ERNEST M.,
Care of Union National Bank, Denver, Colo.
- SAWIN, PROFESSOR JAMES M.,
Point Street Grammar School, Providence, R. I.
- SCHAAP, C. H.,
P. O. box 32, Sitka, Alaska.
- SCHOBINGER, JOHN J.,
Morgan park, Cook county, Ill.
- SCHRADER, F. G.,
68 Thayer hall, Cambridge, Mass.
- SCHRYVER, MISS A. A.,
Teachers' College, 120th street west, New York, N. Y.
- SCOTT, GEORGE M.,
168 Main street, Salt Lake City, Utah.
- SHEPARD, PROFESSOR E. M.,
Drury College, Springfield, Mo.
- SIEGFRIED, SURGEON C. A., U. S. Navy,
U. S. S. *Cincinnati*.
- SILL, LIEUTENANT JAMES L., U. S. Revenue Marine,
U. S. R. M. S. *Boutwell*, Savannah, Ga.
- SIZER, FRANK L.,
Helena, Mont.
- SMILIE, EDWARD S.,
Eliot block, Newton, Mass.
- SMITH, PROFESSOR EUGENE A.,
University of Alabama, University, Ala.
- SMITH, JACOB,
Topographic Survey of Canada, Ottawa, Canada.
- SMOCK, DR JOHN C.,
State Geological Survey, Trenton, N. J.
- SNOWDEN, LIEUTENANT THOMAS, U. S. Navy,
U. S. Naval Academy, Annapolis, Md.
- SNYDER, W. H.,
27 Mellen street, Cambridge, Mass.
- STANWOOD, JAMES H.,
Massachusetts Institute of Technology, Boston, Mass.
- STEDMAN, JOHN M.,
Alabama Polytechnic Institute, Auburn, Ala.
- STOCKTON, COMMANDER C. H., U. S. Navy,
30 Kay street, Newport, R. I.
- STONE, JAMES S.,
131 Vernon street, Newton, Mass.

- SWAN, HONORABLE JAMES G.,
Port Townsend, Wash.
- TARBELL, HORACE S.,
Providence, R. I.
- TARR, RALPH S.,
Cornell University, Ithaca, N. Y.
- TAYLOR, CHARLES E., M. D.,
Saint Thomas, D. W. I.
- TAYLOR, JOHN M.,
Idaho Falls, Idaho.
- TILLMAN, COLONEL S. E., U. S. Army,
West Point, N. Y.
- TOWER, G. W., JUNIOR,
17 College house, Cambridge, Mass.
- TRAUB, LIEUTENANT P. E., U. S. Army,
West Point, N. Y.
- TRAUTWINE, JOHN C., JUNIOR,
419 Locust street, Philadelphia, Pa.
- TUCKER, PROFESSOR WM. J.,
Andover, Mass.
- ULRICH, J. C.,
P. O. box 1291, Denver, Colo.
- UPHAM, WARREN,
109 Oakdale avenue, Cleveland, Ohio.
- UTTER, REVEREND DAVID,
Salt Lake City, Utah.
- VERMEULE, C. C.,
71 Broadway, New York, N. Y.
- WADHAMS, LIEUTENANT COMMANDER A. V., U. S. Navy,
Care of Navy Pay Office, San Francisco, Cal.
- WALKER, E. D.,
605 Union street, Schenectady, N. Y.
- WALLACE, GEORGE Y.,
Salt Lake City, Utah.
- WARD, L. B.,
Taylor's Hotel, Jersey City, N. J.
- WARREN, WILLIAM M.,
329 Broadway, Cambridgeport, Mass.
- WASHBURN, PROFESSOR F. L.,
State University, Eugene, Ore.
- WELLS, WILLIAM H.,
274 Ashland avenue, Chicago, Ill.
- WEST, PRESTON C. F.,
Calumet, Mich.
- WESTGATE, LEWIS G.,
1303 Chicago avenue, Evanston, Ill.
- WHITCOMB, F. J.,
Raymond & Whitcomb, 31 East Fourteenth street, New York, N. Y.

WHITE, T. BROOK,	14 Worcester block, Portland, Ore.
WHITTLE, C. L.,	West Medford, Mass.
WILLARD, DANIEL E.,	State Normal School, Mayville, N. D.
WILLIAMS, PROFESSOR H. S.,	Yale University, New Haven, Conn.
WILLIAMS, WILLIAM,	University Club, New York, N. Y.
WINCHELL, HORACE V.,	1306 Southeast Seventh street, Minneapolis, Minn.
WINCHELL, PROFESSOR N. H.,	120 State street, Minneapolis, Minn.
WOODWARD, PROFESSOR R. S.,	Columbia College, New York, N. Y.
WOODWORTH, J. B.,	7 Rutland square, Cambridge, Mass.
WORTHINGTON, ERASTUS, JUNIOR,	637 Exchange building, Boston, Mass.
WRIGHT, PROFESSOR G. FREDERICK,	11 Elm street, Oberlin, Ohio.
YEATES, CHARLES M.,	Fayetteville, Ark.

SUMMARY.

Honorary members	.	.	.	.	.	.	11
Active members	.	.	.	.	.	.	893
Corresponding members	.	.	.	.	.	.	274
Total membership, May 31, 1895	.	.	.	.	.	.	1,178

1888

1889

1890

1891

1892

1893

1894

1895

100

200

300

400

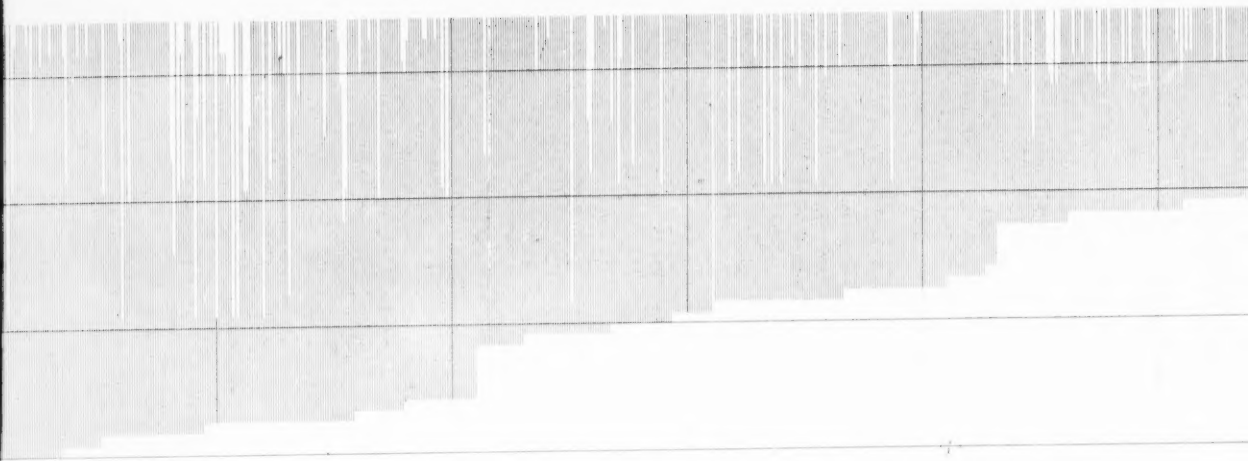
900

800

700

600

500



600

700

800

900

1000

1100

1200

1300

1400

1500

MEMBERSHIP DIAGRAM NATIONAL GEOGRAPHIC SOCIETY

The fine parallel lines represent the total membership of the Society from its organization, in January, 1888, to May 31, 1895; that is, its *aggregate membership*.

Each line shows the date of election and duration of membership of an individual member, in order of election, the months of election and discontinuance being included in the line; a break in the line indicates a discontinuance of membership during that interval.

The diagram is thus a graphic and accurate representation of the number of members originally and in any stated month; the number elected each month and year; and the number of memberships discontinued and renewed, with the date (month) of such changes.

Original membership, January, 1888, - 167.
Present membership, May 31, 1895, - 1,178.
Aggregate membership, Jan., '88, to May, '95, 1,496.

INDEX

	Page
ABYSSINIA, Current money of.....	204
ACOSTA, Reference to writings of.....	211
— cited on weather-making among Peruvians.....	39
— — — rain-making among the Santa Cruz Indians.....	42
ACROSS the deserts to San Francisco mountain, Arizona, Record of lecture on.....	xix
ADLER, CYRUS, Record of lecture by.....	xix
ÆOLUS, Invocation to.....	46
AFFORESTATION, Processes of.....	143
AFRICA, central, dwarfs and forests of, Record of lecture on.....	xvii
—, Civilization of.....	16
—, Former occupants of.....	16
—, Inhabitants of.....	16
—, Slow progress of.....	17
AFRICAN slave trade found profitable.....	16
AGES of human development.....	3
AGRICULTURE, Egyptian.....	7
AIR, Geography of the.....	200
AITKEN, Reference to experiments of.....	59
ALASKA Boundary Commission, Record of discussion on work of.....	xiii
ALASKAN Boundary Surveys, Record of discussion on.....	xiv, xix
ALBATROSS and the wind.....	45
ALEXANDER, Conquests of.....	7
ALGERIA, Climate of.....	17
—, Conquest of, by French.....	17
—, Mortality in.....	17
—, Population of.....	17
AMAZON, Rich valley of.....	18
AMENDMENTS to by-laws, Record of tabling of.....	xv
AMERICA, Physical-geography of.....	17
—, Discovery of.....	16
— — —, New light on the.....	224
AMERICAN Forestry Association, Record of joint meeting with.....	xviii
ANDERSON, W. W., cited on negro folklore.....	44
ANDES of South America, explorations in, Record of lecture on.....	xv
ANGEL, —, Reference to writings of.....	211
ANIMALS, Geographic distribution of.....	229
ANTARCTIC continent, Note on the.....	217
ANTIQUITIES and aborigines of Peru, Record of lecture on.....	xx
APPALACHIANS, Across the, Record of lecture on.....	xix
—, northern, Record of address on.....	xviii
—, southern, Geomorphology of.....	63
ARABIA, Physical features of.....	5
ARABS, Indebtedness of the world to the.....	6
—, Nomadic character of.....	6
ARBUETHNOT, G., Record of lecture by.....	xviii
ARCHITECTURE, Egyptian.....	7
ARGENTINA, Climate of.....	17
—, Immigration into.....	17
—, Population of.....	17
ARIZONA, Rainfall season in.....	57
—, northern, and the Rio Grande, Record of lecture on.....	xix
ARKANSAS river and the plains, Record of lecture on.....	xix

	Page
ARAMDA, Destruction of.....	16
ARYAN conquest of India and Persia.....	10
— migration.....	9
ASHBURTON treaty.....	250
ASIA, political geography of, Record of lecture on.....	xviii
ASSYRIA, Cuneiform characters used in.....	8
—, Extent of.....	7
—, Indebtedness of the world to.....	8
— and Babylonia, recent discoveries in, Record of lecture on.....	xviii
ASTORIA, Founding of.....	249
AUBREY, cited on local superstition.....	46
AUDITING Committee, Report of the: Wm. A. De Caidry and A. C. Rizer.....	xxviii
AWOSTING LAKE, Geographic features of.....	30
BABYLON, City walls of.....	8
—, Civilization of.....	4
—, Palaces, etc., of.....	8
BABYLONIA, Extent of.....	7
BAKER, MARCUS, Record of address by.....	xv
—; Surveys and maps of the District of Columbia.....	149
BALBOA, Voyage of.....	241
BALLENY, Reference to discoveries of.....	218
BARROWS, —, cited on discovery of the Columbia.....	246
BARUS, CARL, Reference to experiments of.....	59
BATTLE (The) of the Forest; B. E. Fernow.....	127
BATTLES of Fredericksburg, Record of addresses on.....	xx
BAUDOUIN, —, Experiments of, in Algeria.....	48
BECHER, CAPTAIN, cited on identity of Watling island.....	182-184
BEDOUIN Poetry and Romance.....	6
BELLINGSHAUSEN, Reference to voyage of.....	217
BENTON, T. H., cited on joint occupation of Oregon.....	252
— — — Rocky mountains as natural boundary.....	255
BERGEN, Miss F. D., cited on call of robin.....	43
BERING, Reference to discoveries of.....	207
BERING SEA Arbitration, practical results of, Record of address on.....	xviii
BERTHOUD, EDWARD L.; Sir Francis Drake's anchorage.....	208
BIBLIOGRAPHY of artificial production of rainfall.....	60-62
BIENAIMÉ, CAPTAIN, Reference to voyage of.....	223
BIRTHPLACE of commerce and letters.....	9
BISCOE, Reference to discoveries of.....	218
BLACKFEET, Rain-making among the.....	38
BOMBAY to the Himalayas, Record of lecture on.....	xvi
BOUNDARY, international, between Mexico and United States, Record of discussion on.....	xix
— survey, Alaskan, Record of discussion on.....	xix
BOURKE, J. G., cited on rain-making among the Moqui.....	39
BOUSSINGAULT, —, Reference to work of.....	231

	Page		Page
BRAVAIS, LIEUT., Reference to work of.....	223	DABLIN, —, cited on weather-making	
BRONZE age.....	3	among the Illinois.....	41
BROWN, FRANCIS, Record of lecture by.....	xviii	DAKOTA INDIANS, Weather-making	
BROWN, J. HENRY, cited on history of		among the.....	40
Oregon.....	252	DALLMAN, —, Reference to discoveries	
BRUCE, DR., Reference to report of.....	222	of.....	218
BRYANT, W. C., Reference to writings of.....	210	DALY, C. P., Record of letter from.....	xvii
—, Quotation from.....	267	DARTON, N. H., Record of address by.....	xx
BUCKLE, H. T., Quotation from.....	18	—; Shawangunk mountain.....	23
BY-LAWS of the National Geographic Society.....	xxix	DAVIDSON, G., Reference to researches of.....	213
CABRILLO's explorations.....	213	DAVIS, A. P., Record of discussion by.....	xvi
CALIFORNIA COAST, Old map of.....	211	—, Record of lecture by.....	xix
— represented as an island.....	213	DAVIS, WM. M., Record of lecture by.....	xviii
CALL of birds for rain.....	43	—, Reference to writings of.....	65, 66, 71, 73, 79, 226
CAMBRIDGE, Tardy recognition of geography at.....	201	DAY, D. T., conductor of excursion.....	xvi
CAMBYSES, Conquests of.....	7	—, Record of lecture by.....	xix
CAMPBELL, M. K., Record of address by.....	xv	DE KERGUELEN, —, Reference to voyage of.....	217
—, and C. WILLARD HAYES; Geomorphology of the southern Appalachians.....	63	DICKINS, E. F., Record of discussion by.....	xiv
CANADIAN Northwest Fur Company.....	251	DILLER, J. S., Record of lecture by.....	xix
CAPE COLONY, Climate of.....	17	—, Reference to writings of.....	226
—, Population of.....	17	DISCOVERY of America, New light on the.....	224
CASTELAR, Reference to article by.....	180	DISTRIBUTION (Geographic) of animals and plants.....	229
CAULIN, GEORGE, cited on rain-making among the Mandans.....	37	DISTRICT OF COLUMBIA, Alleged center of.....	162
CATS and the weather.....	45	—, Boundary monuments of.....	152
CAVENDISH, T., Voyages of.....	208	—, Corner-stone of.....	149
CARVER, JONATHAN, Reference to writings of.....	267	—, Errors in survey of.....	155
CENTRAL AMERICA, Settlement of.....	19	—, First survey of.....	151
CHALLENGER expedition, Reference to.....	218-222	—, Geological Survey map of.....	158
CHANCELLOR, Reference to voyage of.....	207	—, Original dimensions of.....	153
CHARLEVOIX, P. F. X., cited as to weather-making among the Natchez.....	36	—, Original limits of.....	150
CHINA, Civilization of.....	4	—, Retrocession of portion of.....	153, 157
—, Crystallized culture of.....	5	—, Surveys and maps of.....	149
—, Physical geography of.....	4	—, True center of.....	163, 164
CHINESE inventions.....	5	DOBRIZHOFFER, —, Reference to writings of.....	49
CHOCTAWS, Rain-making among the.....	38	DORSEY, J. OWEN, cited on weather-making among the Omahas.....	36, 41
CICADA, periodic appearance of, Record of address on.....	xvii	—, cited on weather-making among the Kanze (Omaha).....	40
CIVILIZATION, Arrested development of.....	13	DRAGON TREES, Longevity of.....	128
—, Decay of.....	14	DRAKE, SIR FRANCIS, Anchorage of.....	208
—, European, Birthplace of.....	16	—, Bravery of.....	208
—, Geographic progress of.....	1	—, Connection of, with slavery.....	16
CLARK, W. P., cited on rain-making among the Blackfeet.....	38	—, Explorations of.....	241
CLIFF-DWELLERS of Mexico, Record of address on.....	xv	—, Raids on Spanish colonies by.....	208
COLERIDGE, S. T., Quotation from.....	45	DU CHAILLU, PAUL B., Record of lecture by.....	xvii, xviii
COLUMBUS, Falsification of log by.....	180	DUCK, Call of, for rain.....	43
—, First landfall of.....	179	D'URVILLE, Reference to voyage of.....	218, 222
COMBS, MISS CORA, Honorable mention of.....	228	DWARFS, African, habits of.....	3
COMMERCE, Birthplace of.....	9	— and Forests of Central Africa, Record of lecture on.....	xvii
COMPASS, Undetermined variation of.....	181	DYER, S. A., Reference to report of.....	55
CONCUSSION theory of rain-making.....	53-56	DYRENFORTH, R. G., Rain-making experiments by.....	54-56
CONFISCATION of Boschke's map.....	157	EARTH'S SURFACE, shaping of the, Record of lectures on.....	xiii
CONSTANTINOPLE, Fall of.....	15	ECONOMIC aspects of erosion, Record of lecture on.....	xviii
COOK, CAPTAIN JAMES, Reference to discoveries of.....	207, 217, 241-243	EGYPT, Agriculture of.....	7
COPPER MINES, Ancient.....	3	—, Architecture of.....	7
COSTA RICA AND PANAMA, Record of lecture on.....	xx	—, Civilization of.....	4
COUES, ELLIOTT, Record of address by.....	xviii	—, Geographic features of.....	6
—, Reference to writings of.....	247	EGYPTIANS, Indebtedness of the world to the.....	7
CRATER LAKE, Mount Shasta and Sacramento, Record of lecture on.....	xix	ELLICOTT, A., Reference to work of.....	150, 160
CROFFUT, W. A., Record of discussion by.....	xvi	ELLIS, JOHN T., Reference to report of.....	55
CRONAU, R., Reference to writings of.....	183	ENGEL, —, Reference to writings of.....	213
CROW, Call of, for rain.....	43	ENGLAND, Colonies founded by.....	16
CUBA, geography of, Record of address on.....	xvii	—, Foreign possessions of.....	16
CURTIS, G. E., Reference to report of.....	55	—, its beginning as a maritime power.....	16
CUSHING, F. H., Record of lecture by.....	xvi, xix, xx	—, Mineral wealth of.....	16
		—, Shakespeare's, Record of lecture on.....	xviii

	Page		Page
ENGLISH NAVY, Supremacy of.....	208	GEOGRAPHY of the air; A. W. Greely.....	200
— reforms in India.....	11	—, etc., of Oregon.....	239
EROSION, uplift and, Record of lecture on.....	xiii	—, physical, Broad field of.....	204
ESPY, JAMES P., Reference to writings of.....	49, 52	—, political, Scope of.....	204
EXCURSION to Dismal swamp, Record of.....	xvi	—, Proper restriction of.....	201
EHELMANS, LIEUTENANT, Reference to work of.....	223	—, science of, Record of address on.....	xviii
FAIRCHILD, EUGENE, Reference to report of.....	55	GEOLOGY of Ulster county, New York.....	24
FARRELO, Voyage of.....	241	GEOMORPHOLOGY of the southern Appalachians; C. Willard Hayes and Marius R. Campbell.....	63
FARWELL, SENATOR, Interest of, in rain-making experiments.....	54	GEORGETOWN, Early existence of.....	153
FERNOW, B. E.; The battle of the forest.....	127	GERMAN method of forest management.....	147
FIELD MEETING, Record of.....	xx	GERMANY, Study of geography in.....	200
FIRST landfall (The) of Columbus; Jacques W. Redway.....	179	GIBBON, GENERAL JOHN, Record of address by.....	xx
FISKE, JOHN, Reference to writings of.....	183	GILBERT, G. K., conductor of excursion.....	xvi
FLEMER, J. A., Record of discussion by.....	xiv	—, Record of lectures by.....	xiii, xix
FLETCHER, ROBERT, explanation of local superstition.....	46	— — — thanks to.....	xiv
—, cited on call of quail.....	43	—, Reference to writings of.....	226
FLETCHER, —, cited on Drake's voyages.....	208-212	GOLD medal of National Geographic Society.....	227
FLORA, early, Types of.....	129-131	GOLDEN GATE, Yosemite, Los Angeles and San Bernardino, Record of lecture on.....	xix
— of the Pacific coast.....	140, 141	GOODE, R. U., Record of discussion by.....	xvi
FLORIDA treaty.....	244	GOOSE dancing for rain.....	43
FOLK-LORE remnants.....	43	GOVERNMENT, Patriarchal.....	5
FOREST, Battle of the.....	127	GRAY, ASA, cited on growth of trees.....	127
— management, German method of.....	147	GRAY, CAPTAIN, Explorations by.....	245
—, North American, Subdivisions of.....	139	GREAT BRITAIN, Geographic features of.....	15
— trees, eastern, Dimensions of.....	136	—, Study of geography in.....	201
—, Petrified, in Yellowstone National Park.....	130	GREECE, Geographic features of.....	11
FORESTRY, Intelligent.....	146	—, Indebtedness of the world to.....	12
FORNEY, S., Record of address by.....	xix	GREEKS, Different characteristics of.....	12
FOSTER, JOHN W., Record of lecture by.....	xvii	GREELY, A. W., Geography of the air.....	200
FOX, C. J., cited on Nootka treaty.....	243	—, Record of address by.....	xvii, xviii
FOX, CAPTAIN G. V., Reference to writings of.....	182	—, to judge essays.....	228
—, cited on first landfall of Columbus.....	179	GREENHOW, R., cited on possession of Oregon.....	250
FREDERICKSBURG and vicinity, Record of symposium on.....	xx	—, Reference to writings of.....	214
—, Record of field meeting at.....	xx	GRINNELL, G. B., cited on weather-making among the Pawnee.....	40
FREMONT, the Path-finder.....	264	GULF STATES, Increase of negroes in.....	20
FROM Cape Town into the countries of the Ma-Shukulumbe, Record of lecture on.....	xviii	GUYOT, P., Reference to work of.....	206
FROST, JOHN, cited on rain-making among the Mandans.....	37	HAITI, Degradation of inhabitants of.....	21
FROSTS, killing, Effects of, on distribution.....	233	—, Revolution in.....	21
GALIANO, Voyage of.....	241	HALE, Reference to writings of.....	211
GALILEO, Reference to discoveries of.....	46	HARRINGTON, MARK W., Record of lecture by.....	xix
GANNETT, HENRY, Record of lecture by.....	xix	—, Record of paper by.....	xvi
— — — paper by.....	xv	—, Weather-making, ancient and modern.....	35
GATHMAN, L., Method of, for obtaining rain.....	52	HARVEY, FRED L., Acknowledgment to.....	160
—, Rain-making experiments of.....	53	HAWKINS, Connection of, with slavery.....	16
GEOGRAPHERS, Meeting of.....	226	HAYDEN, EVERETT, Record of address by.....	xviii
GEOGRAPHIC distribution of animals and plants.....	229	HAYES, C. WILLARD, Record of address by.....	xv
— — — life, Record of address on.....	xviii	— and MARIUS R. CAMPBELL; Geomorphology of the southern Appalachians.....	63
— — — soils, Record of address on.....	xviii	HECETA, Voyages of.....	241
— progress of civilization; Gardiner G. Hubbard.....	1	HECKEWELDER, J. G. E., cited as to weather-making among Muskingum Indians.....	36
— societies, work of foreign, Record of address on.....	xvii	HEER, Reference to work of.....	207
GEOGRAPHY, commercial, Field of.....	203	HEIGHT of Mount Saint Elias; Israel C. Russell.....	215
—, Distinct branches of.....	204	HERODOTUS, Quotation from.....	7
— Educational neglect of, in the United States.....	206	HERRERA, Reference to writings of.....	186, 187
—, Importance of.....	201	HILL, R. A., Record of address by.....	xvii
—, Mathematical, Relation of.....	204	—, Record of lecture by.....	xvi, xx
— of Cuba, Record of address on.....	xvii	HISTORY, etc., of Oregon.....	239
		HODGKINS, W. C., Record of discussion by.....	xiii
		HOLUB, EMIL, Record of lecture by.....	xviii, xix
		HOMER, Reference to poems of.....	12

	Page		Page
HOOKE, Reference to work of.....	207	KENTUCKY and Virginia, great caves of, Record of lecture on.....	xix
HORACE, Quotation from, on fame.....	261	KEPLER, Reference to discoveries of.....	46
HOTCHKISS, JED, Record of address by.....	xix, xx	KERR, W. C., Reference to writings of.....	76
HOUSTON, EDWIN J., Reference to writings of.....	52	KILDEE, Call of, for wind.....	44
HUBBARD, GARDINER G., Geographic progress of civilization.....	i	KILLING frosts, Important effects of.....	233
—, Record of address by.....	xiv, xx	KING, NICHOLAS, Letter from.....	164
HUDSON Bay company.....	250	—, Reference to letter from.....	160
HUDSON, Reference to discoveries of.....	207	— — — work of.....	160-163
HUMBOLDT, cited on climatic factors.....	229	KURINO, S., Record of remarks by.....	xviii
—, cited on early navigation of North Pacific.....	241	LABOR and industries of the South, Record of lecture on.....	xviii
HUMIDITY, Effect of, on distribution.....	238	LAKE AWOSTING, Geographic features of.....	30
HURONS, Rain-making among the.....	41	LAKE MINNEWASKA, Geographic features of.....	29
HYKSOS, Conquests of.....	7	LAKE MOHUNK, Geographic features of.....	27
ICELAND, Magnetic observations in, in 1892.....	223	LAKE SUPERIOR, Some physical features of, Record of lecture on.....	xix
ICE-WORK, Record of lecture on.....	xiii	LANDING PLACE, Second, of Columbus.....	191
ILLINOIS, Weather-making among the.....	41	LAND of the Midnight Sun, Record of lecture on.....	xviii
INCANTATIONS in weather-making.....	36	LANDTAG of Prussia, Reference to debate in.....	147
INDIA, Diversity of population of.....	11	LA ROCHE, —, Reference to voyage of.....	217
—, English reforms in.....	11	LARSEN, C. A., Reference to voyage of.....	220-222
—, Original arts of.....	11	LATITUDE, Disagreement as to.....	209
—, Physical geography of.....	10	—, Parallels of, and peculiarities of nations.....	20
—, Population of.....	10	Laws of temperature control of the geographic distribution of terrestrial animals and plants; C. Hart Merriam.....	229
—, Various civilizations of.....	11	LEHMAN, R., Reference to suggestions by.....	226
INDIANS, Degrees of civilization among.....	18	L'ENFANT, P. C., Reference to work of.....	150, 154, 159, 161
—, equatorial, Habits of.....	3	Letters, Birthplace of.....	9
—, Mandan, Habits of.....	3	LEWIS and CLARKE, Explorations of.....	246
—, Organized government of.....	18	LINSSER, —, Reference to work of.....	231
—, Reliance of, for support.....	18	LITERATURE on artificial production of rainfall.....	60-62
—, Variety of race and language among.....	18	LITTLEHALES, G. W., Record of address by.....	xviii
INDUSTRIAL statistics, Record of paper on.....	xv	LOG BOOK, Falsification of, by Columbus.....	180
INTERACTION, Record of lecture on.....	xiii	LOOMIS, L. C., Record of address by.....	xviii
INVENTIONS of the Chinese.....	5	LOON, Call of, for rain.....	43
IRANIAN PLATEAU, Population of.....	10	LOUISIANA purchase.....	244
IROQUOIS, Weather-making among the.....	37	LUMHOLTZ, CARL, Record of address by.....	xv
IRRIGATION of Babylonia.....	7	MCDUFFIE, SENATOR, cited on supposed worthlessness of Oregon.....	254
— in the far west.....	19	MACFARLANE, A., cited on Dyrenforth's experiments.....	56
IRVING, WASHINGTON, cited on founding of Astoria.....	249	MCGEE, W. J., Record of lecture by.....	xix
— — — first landfall of Columbus.....	179	—, Reference to writings of.....	65, 79, 81, 82, 89, 94
ITALY, Geographic position of.....	12	MCGRATH, J. E., Record of address by.....	xix
—, New civilization in.....	14	—, Record of discussion by.....	xiii
—, Study of geography in.....	201	—, Reference to work of.....	215
JAMAICA, Geographic features of.....	20	MCGREE, —, cited on formation of Mississippi bad lands.....	143
—, Population of.....	21	MACKAY, GEORGE, Story of.....	49
—, Slavery in.....	21	MAGNETIC observations in Iceland, Jan Mayen and Spitzbergen in 1892, Note on.....	223
JAN MAYEN, Magnetic observations in, in 1892.....	223	MAJOR, R. H., Reference to researches of.....	182
JAPAN, Abolition of feudal despotism in.....	193	MALDONADO, Voyage of.....	241
—, D. W. Stevens.....	193	MAN, the master of his environment.....	22
—, Educational institutions in.....	195	MANDAN, Rain-making among the.....	37
—, Executive government of.....	198	MANDAÑA, ELVARO, Reference to voyage of.....	217
—, Imperial Diet of.....	198	MAP, Boschke's, Confiscation of.....	157
—, Laws of.....	199	MAPS, etc. of the District of Columbia.....	149
—, Newspaper press of.....	196	MARIE-DAVY, Reference to writings of.....	231
—, Public administration of.....	195	MARKHAM, C. R., cited on first landfall of Columbus.....	184, 185
—, Religious liberty in.....	194	MARTEL, CHARLES, at Tours.....	6
—, Restoration of imperial government in.....	193	MAURY, M. F., Reference to work of.....	206
—, Transportation facilities in.....	195	MEARNS, E. A., Record of address by.....	xix
JESSUP, A. A., Record of lecture by.....	xx		
JOHNSON, I. C., Reference to writings of.....	110		
JOHNSON, W. D., Record of lecture by.....	xv		
JULIEN, —, cited as to direction of glacial scorings.....	33		
KAMCHATKA, Habits of natives of.....	3		
KEANE, JOHN J., Record of remarks by.....	xvii		
KEELER, LUCY E., cited on weather-making among the Dakotas.....	40		
KENNAN, GEORGE, Record of lecture by.....	xx		

	Page		Page
MEARS, CAPTAIN, Reference to discoveries of.....	242, 243, 245, 246	NEGRO population of United States.....	20
MECCA, Annual pilgrimages to.....	5	NEUMAYER, DR., Reference to writings of.....	222
MEDINA, Annual pilgrimages to.....	5	NEWCOMB, SIMON, Reference to writings of.....	52, 53
MELBOURNE, FRANK, Alleged rain-making by.....	58	NEWELL, F. H., Record of discussion by.....	xvi
MEMBERS, Active, List of.....	xxxiv	—, Record of lecture by.....	xix
—, Corresponding, List of.....	lxxii	New light on the discovery of America.....	224
—, Honorary, List of.....	xxxiii	NEW MEXICO, Rainfall season in.....	57
MENDENHALL, T. C., Acknowledgment to.....	42	NEWTON, Reference to discoveries of.....	46
—, Record of discussion by.....	xiii	NIAGARA FALLS, Side trip to, Record of lecture on.....	xix
—, Record of paper by.....	xvii	NIBLACK, A. P., Record of discussion by.....	xiv
—, to judge essays.....	228	NICARAGUA CANAL, Record of lecture on.....	xviii
MERIDIAN, The initial.....	159	NILE, Length and breadth of the.....	7
MERRIAM, C. HART; Laws of temperature control of the geographic distribution of terrestrial animals and plants.....	229	— valley, People of the.....	7
—, Record of address by.....	xviii	NINEVEH, City walls of.....	8
—, Record of papers by.....	xiv	—, Palaces of.....	8
MESOPOTAMIA, Geographic features of.....	7	NOBLE, W., cited on rain-making among the Choctaws.....	38
—, Great cities of.....	8	NOOTKA convention.....	242
—, Successive rulers of.....	8	NORTH AMERICA, Settlement of.....	19
MEXICO, Cliff-dwellers of, Record of address on.....	xv	NORTHEASTERN boundary of United States, Record of paper on.....	xvii
—, mountains of, Record of lecture on.....	xvi	NORTHERN ROCKIES, down the Columbia, Mount Rainier and Portland, Record of lecture on.....	xix
MINNEWASKI LAKE, Geographic features of.....	29	NORWAY, Physical features of.....	14
MISSISSIPPI bad lands, Formation of.....	143	OBSERVATIONS, Magnetic, in Iceland, Jan Mayen, and Spitzbergen in 1892.....	223
—, Sources of, Record of address on.....	xviii	OCEANOGRAPHY, recent results in, Record of address on.....	xviii
— valley a factor in growth and prosperity of United States.....	19	OFFICERS of the National Geographic Society.....	xxxii
—, Immigration into.....	19	OGDEN, H. G., Record of discussion by.....	xiii
MITCHELL, JOHN H.; Oregon: its history, geography, and resources.....	239	OIL and gas regions, trip through, Record of lecture on.....	xix
—, Record of lecture by.....	xix	OLDHAM, V., Reference to paper by.....	224
MIXED RACES, Adaptation of South America to.....	19	OMAHA, Weather-making among the.....	36
MOHAMMEDANS and the sciences.....	6	OREGON admitted as a state.....	266
— as law-givers.....	6	—, Claim of Great Britain to.....	241
MOHUNK LAKE, Geographic features of.....	27	—, Claim of Spain to.....	241
MONOGRAPHS of the National Geographic Society.....	225	—, Discovery of.....	240
MOONEY, JAMES, cited on Indian belief concerning snakes and rain.....	44	—, First governor of.....	266
— cited on supposed influence of killdeer.....	44	—, Historical sketch of.....	240
MOQUI, Rain-making among the.....	38, 39	—: its geography, history and resources, Record of lecture on.....	xix, 239
MORTON, J. STERLING, Record of remarks by.....	xviii	—, Origin of name of.....	266
MOSMAN, A. T., Record of address by.....	xix	— territory, Original dimensions of.....	240
MOUNT RAINIER, Ascent of, Record of lecture on.....	xiii	ORIGIN and configuration of the upper Alpine passes, Record of lecture on.....	xviii
MOUNT SAINT ELIAS, Great depth of snow on.....	215	ORINOCO, Rich valley of.....	18
—, Height of.....	215	ORTON, EDWARD, Record of lecture by.....	xix
MOUNTAINS of Mexico, Record of lecture on.....	xvi	OTTOMAN EMPIRE, Record of lecture on.....	xix
MOXOM, P. S., Record of letter from.....	xvii	OUTFIT and cruises of the Albatross, Record of address on.....	xviii
MUÑOZ cited on first landfall of Columbus.....	179	OUTHWAITE, J. H., Record of remarks by.....	xvii
MURDOCH, LIEUTENANT, Reference to researches of.....	182	OXFORD, Tardy recognition of geography at.....	201
MURRAY, J., Reference to work of.....	219, 221, 222	PACIFIC and Arctic whaling industry, Record of lecture on.....	xiv
NATAL, Climate of.....	17	PARKER, WM. H., Reference to researches of.....	182
—, Government of.....	17	PARKMAN, FRANCIS, cited on rain-making among the Hurons.....	41
—, Immigration into.....	17	PERES, JUAN, Voyage of.....	241
—, Population of.....	17	PERIODIC appearance of cicada, Record of address on.....	xvii
NATCHEZ, Weather-making among the.....	36	PERKINS, G. C., Record of lecture by.....	xiv
NATIONAL domain, Record of discussion on.....	xvi	PERKINS, E. T., JR., Record of discussion by.....	xvi
NATIONAL GEOGRAPHIC SOCIETY, Monographs of.....	225	—, Record of lecture by.....	xix
NAVARRETE, M. J. DE, cited on first landfall of Columbus.....	179	PERSIA, Physical geography of.....	10
NEGRO folk-lore on Santee river.....	44	PERSIANS, Character of the.....	10
—, Free, in equatorial regions supplants white man.....	22		

	Page		Page
PERU, Antiquities and aborigines of, Rec-	xx	REDWAY, JACQUES W.; The first landfall	
—, Record of lecture on.....	xvii	of Columbus.....	179
PERUVIANS, Rain-making among the.....	39	REPORT of the Auditing Committee.....	xxviii
PHENICIA, Indebtedness of the world to.....	9	— — — Recording Secretary.....	xxi
—, Wealthy cities of.....	9	— — — Treasurer.....	xxvi
PHENICIANS, Colonies of.....	9	RESOURCES etc, of Oregon.....	239
—, Manufactures of.....	9	RILEY, C. V., Record of address by.....	xvii
—, Mercantile career of.....	9	RITTER, H. P., Record of address by.....	xix
PHYSICAL methods of weather-making.....	46	— — — discussion by.....	xiii
PHYSIOGRAPHIC processes, Record of ad-	xviii	ROBIN, Call of, for rain.....	43
— address on.....	xviii	ROCKY MOUNTAINS, Mineral wealth of.....	19
PHYSIOGRAPHY, elements of, Record of	xvii	ROME, Conquest of.....	13
— address on.....	xvii	—, Indebtedness of the world to.....	13
— of southern Appalachians, Record of	xv	—, Commerce of, with distant countries.....	13
— address on.....	xv	—, Genius of, for government.....	12
PICKERING, W. H., Record of lecture by.....	xv	—, Renaissance of.....	15
PIPE-SMOKING in weather-making.....	36	ROMERO, M., Record of remarks by.....	xvi
PLANTS, Geographic distribution of.....	229	ROSS, J. C., Reference to voyages of.....	217, 218
PLUTARCH cited on rainfalls after battles.....	53	RUGGLES, DANIEL, Patent for rain-mak-	
POLITICAL geography of Asia, Record of	xviii	— ing granted to.....	54
— lecture on.....	xviii	RUSSELL, I. C., Reference to writings of.....	226
POPE ALEXANDER'S bull.....	212	— ; On height of mount Saint Elias.....	215
PORTUGAL, Physical features of.....	15	RUSSIA, Record of presidential address on.....	xx
PORTUGUESE traders and discoverers.....	15		
POWELL, J. W., Record of address by.....	xiv, xviii	SAINT ELIAS, MOUNT, Great depth of	
—, Record of lecture by.....	xix	— snow on.....	215
—, Reference to writings of.....	226	—, Height of.....	215
POWELL, W. B., to judge essays.....	228	SAINT LAWRENCE RIVER, French settle-	
POWERS, EDW'D., Reference to writings of.....	53	— ments on.....	19
PRACTICAL results of Bering Sea arbitra-		SAINT LAWRENCE VALLEY, Character of	
— tion, Record of address on.....	xviii	— inhabitants of.....	19
PRATT, J. F., Record of address by.....	xix	SALT LAKE CITY and the Grand Canyon,	
—, Discussion by.....	xiv	— Record of lecture on.....	xix
PRAYER in weather-making.....	36	SAMANA, Identity of.....	186
PRESIDENT'S annual address: Russia,		—, probable first landing place of Colum-	
— Record of delivery of.....	xx	— bus.....	192
PRETTY, —, Reference to writings of.....	208-210	SAN ANTONIO, Rain-making experiments	
PRINTING PRESS, Invention of.....	15	— at.....	57
PRIOR, —, Reference to writings of.....	210	SAN DOMINGO, Degradation of inhabit-	
PRIZE ESSAYS: National Geographic So-		— ants of.....	21
— ciety.....	227	—, Disappearance of Indians from.....	21
PROBLEM of the Yosemite, Record of lec-	xv	—, First European settlement of.....	21
— ture on.....	xv	—, Former carrying trade of.....	21
PROCTOR, JOHN R., Record of address by.....	xviii	—, Geographic features of.....	21
PROGRESS of civilization.....	i	—, Revolution in.....	21
PUBLICATIONS of the Society.....	vi	SAN FRANCISCO BAY.....	210-214
PUBLIC domain in its social aspect, Rec-		SAN JUAN DE FUCA, Voyage of.....	241
— ord of discussion on.....	xvi	SANTA CRUZ INDIANS, Rain-making	
— lands of Idaho, Record of discussion on.....	xvi	— among the.....	42
— — — the United States, Record of dis-		SAVAGE, Decadence of the.....	19
— cussion on.....	xvi	SCANDINAVIA, Revival of civilization in.....	14
PUEBLO INDIANS, home of, Record of lec-		SCHOOLCRAFT, H. R., cited on rain-mak-	
— ture on.....	xix	— ing among the Moqui.....	38
—, Record of lecture on.....	xvi	SCHROCK, WILLIAM, cited.....	43
		SCYTHIAN incursions into Mesopotamia.....	8
Quail, Call of, for rain.....	43	SEARS, ALFRED F., Record of lecture by.....	xvii
RACES, Struggle of the.....	22	SECRETARY, Recording, Annual report of	
RAIN produced by prairie fires.....	49	— the.....	xxi
RAIN-MAKING, Bibliography of.....	60-62	SEINE, Meuse, and Moselle, Record of	
— and stopping by superstitious and re-		— lecture on.....	xviii
— ligious methods.....	35	SEQUOIAS, Longevity of.....	128
— by artificial means.....	48	SHAKESPEARE'S England, Record of lec-	
— — atmospheric concussion.....	52-56, 59	— ture on.....	xviii
— — chilling atmosphere.....	52, 59	SHALER, N. S., Record of address by.....	xviii
— — means of great fires.....	49-51, 59	—, Reference to writings of.....	81, 225
— — use of kite, in Algeria.....	45	SHAPING of the earth's surface, Record of	
— experiments, Congressional appropria-		— lectures on.....	xiii
— tion for.....	54	SHAWANGUNK MOUNTAIN; N. H. Darton.....	23
—, Literature of.....	60-62	SIBERIA, Record of lecture on.....	xx
—, Secret method of.....	58	SIGSBEE, C. D., Record of address by.....	xviii
RAINIER, MOUNT, ascent of, Record of lec-		SIGSBEE deep-sea sounding machine, Re-	
— ture on.....	xiii	— cord of address on.....	xviii
RAVEN, Call of, for rain.....	43	SINCLAIR, C. H., Reference to work of.....	152
RECEPTION at Arlington hotel, Record of.....	xix	SIR FRANCIS DRAKE'S anchorage; Ed-	
RECENT discoveries in Assyria and Baby-		— ward L. Berthoud.....	208
— lonia, Record of lecture on.....	xviii	SLAVERY in the United States.....	20
		SLAVE trade found profitable.....	16
		SMITH, C. A., cited on call of loon.....	43

	Page		Page
SMITH, ERMINNIE A., cited as to weather-making among the Iroquois.....	36	UNITED STATES, Peculiarities of inhabitants of.....	20
SMITH, EUGENE A., Reference to writings of.....	110	—, Slavery introduced into.....	20
SMITH, E. C., Record of lecture by.....	xiii	UPLIFT and erosion, Record of lecture on.....	xiii
SNAKES and the weather.....	44	UTRECHT, Treaty of.....	263
SONORA, Mexico, Record of lecture on.....	xix	VALDES, Voyage of.....	241
SÓPATER, Superstition concerning.....	45	VANCOUVER, CAPTAIN, Reference to discoveries of.....	242, 243
SOUTH AMERICA, Adaptation of, to mixed races.....	19	VEDAS, Antiquity of the.....	10
—, Disappearance of pure Indians from.....	19	VENEGAS, MIGUEL, Reference to writings of.....	214
—, Inhabitants of.....	18	VIKINGS, Colonies founded by.....	14
—, Luxuriant vegetation of.....	18	—, Home of the.....	14
—, Settlement of.....	19	VIRGINIA BEACH, Record of meeting at.....	xvi
SOUTHERN APPALACHIANS, Geomorphology of.....	63	VISCAINO, Survey of.....	213
SPAIN, Commercial monopoly of.....	208	WALCOTT, C. D., Record of lecture by.....	xix
—, Physical features of.....	15	—, Record of remarks by.....	xvii
—, Slavery in.....	15	WELKER, FULLER, Acknowledgment to.....	35
—, War of, with the Moors.....	15	WASHINGTON CITY, Rain-making experiments near.....	54
SPITZBERGEN, Magnetic observations in, in 1892.....	223	—, First map of.....	154
STANLEY, H. M., Reference to discoveries of.....	207	— in embryo, Reference to.....	153
STANLEY-BROWN, J., Record of address by.....	xviii	— to Pittsburg and Niagara Falls, Record of lecture on.....	xix
STATISTICS of our industries, Record of paper on.....	xv	WATER supply of the United States, Record of lecture on.....	xiv
STEELE, —, cited on people of Finland.....	46	WATER WORK, Record of lecture on.....	xiii
STEVENS, D. W., Japan.....	193	WEATHER-CHANGING, Absurd schemes for.....	47
STEVENSON, M. C., cited on rain-making among the Zulu.....	39	WEATHER-MAKING, Ancient and modern; Mark W. Harrington.....	35
STONE age.....	3	— — —, Record of paper on.....	xiv
SUPERSTITIONS of Indians regarding weather.....	35-44	WEBB, W. B., Reference to writings of.....	162
— of negroes regarding weather.....	44	WEDDELL, J., Reference to voyages of.....	217
— of sailors regarding weather.....	44, 45	WELKER, P. A., Record of discussion by.....	xiii
SUPERSTITIOUS methods of rain-making and stopping.....	35	WELLING, J. C., Record of remarks by.....	xvii
SURVEYS and maps of the District of Columbia: Marcus Baker.....	149	WEST, FAR, Irrigation in.....	19
SYRIA a civilizing agency.....	9	WEST INDIES, Climate of.....	22
— a great battlefield.....	9	—, Fertility of soil of.....	22
—, Physical features of.....	8	—, Introduction of negroes into.....	16
TANNER, Z. L., Record of address by.....	xviii, xx	WHALING industry, Record of lecture on.....	xiv
TATARS of Asia, Habits of.....	3	WHITMAN Memorial College.....	260
TEMPERATURE control of geographic distribution of animals and plants.....	229	WHITMAN, M., Mission of, to Washington.....	257
TERTIARY changes in drainage of southwestern Virginia, Record of paper on.....	xv	—, Tardy appreciation of.....	260
TEXAS land system, Record of discussion on.....	xvi	—, the real path-finder.....	265
—, Rain-making experiments in.....	54-57	WHITNEY, MILTON, Record of address by.....	xviii
—, Western, Rainfall in.....	57	WILKES, Reference to voyage of.....	218, 222
THOMPSON, A. H., Record of lecture by.....	xix	WILLIS, BAILEY, Record of address by.....	xviii
THOMPSON, GILBERT, Record of address by.....	xviii, xx	—, Reference to writings of.....	73, 79, 226
THOMPSON, J. B., Record of discussion by.....	xvi	WILSON, H. M., Record of lecture by.....	xvi
TIERRA DEL FUEGO, Habits of natives of.....	3	— — — remarks by.....	xvi
TIMBER, species of, Economic value of.....	145	WIND-RAISING, Methods of.....	39, 44, 45
— — — found in markets.....	145	WIND-WORK, Record of lecture on.....	xiii
TITTMANN, O. H., Record of discussion by.....	xiv	WINSHIP, N., Voyage of.....	250
TOBACCO-BURNING in weather-making.....	36	WINSOR, JUSTIN, Reference to writings of.....	210
TOPOGRAPHIC forms, Record of address on.....	xviii	WINTER (A) in the depths of the Grand Canyon, Record of lecture on.....	xix
TORNADOES, Proposed destruction of.....	47	WINTHROP, —, cited as to retention of Oregon.....	255
TOURS, Battle of.....	6	WITCHES, Influence of, on weather.....	46
TREASURER, Annual report of the.....	xxvi	WOOD, J. W., Reference to writings of.....	65
TREE LIFE, Persistence of.....	127	WRIGHT, CARROLL D., Record of lecture by.....	xviii
TURKISH EMPIRE, Record of lecture on.....	xx	YELLOWSTONE NATIONAL PARK, Forest remains in.....	130
TURNER, J. H., Reference to work of.....	215	YELLOWSTONE, wonderland of the, Record of lecture on.....	xix
TWISS, PROFESSOR, cited on discovery of the Columbia.....	246	YOSEMITE, problem of the, Record of lecture on.....	xv
TYPES of early flora.....	129	ZANZIBAR, Money recognized at.....	204
ULSTER COUNTY, N. Y., Geology of.....	24	ZONES of civilization.....	1
UNITED STATES, northeastern boundary of, Record of paper on.....	xvii	— — faunal and floral distribution.....	229
		— — production.....	1
		ZULU-MA-ATABELE and modes of travel in South Africa, Record of lecture on.....	xix
		ZUSI, Rain-making among the.....	39

